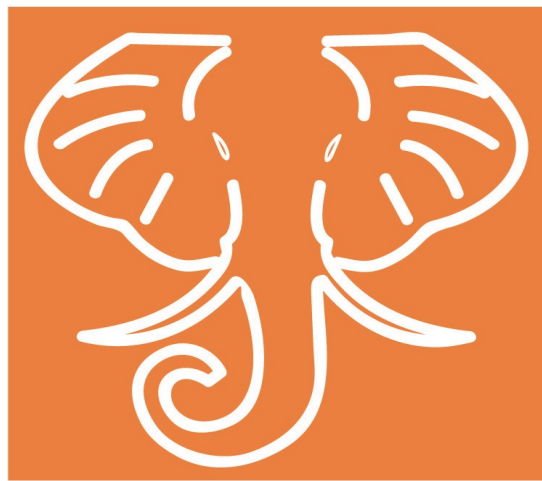


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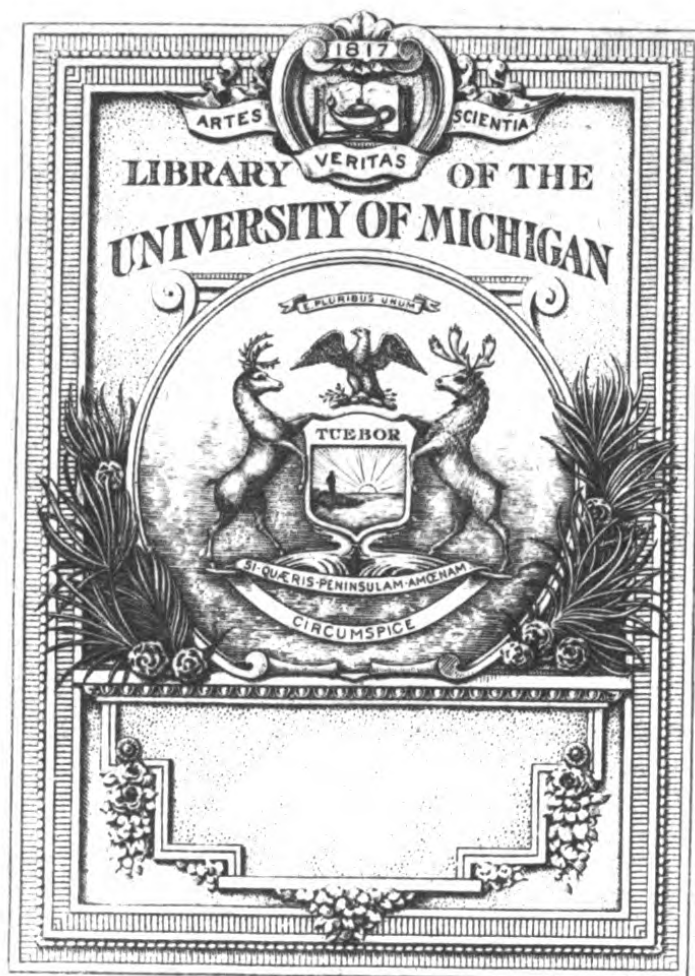
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NUMISMATIC NOTES  
AND MONOGRAPHS

No. 56



SOUTH AMERICAN DECORATIONS  
AND WAR MEDALS

BY

HARROLD E. GILLINGHAM

THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
NEW YORK  
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# NUMISMATIC NOTES AND MONOGRAPHS

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# SOUTH AMERICAN DECORATIONS AND WAR MEDALS

BY  
HARROLD E. GILLINGHAM



THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
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# SOUTH AMERICAN DECORATIONS AND WAR MEDALS

BY HARROLD E. GILLINGHAM

Many of the war medals and decorations of the South American Republics are concerned with their struggle for independence from Spain. Some knowledge of the causes of this struggle is fitting—the difficulties of stating these causes briefly will be obvious, but the necessity for such a statement as a starting point must suffice as a reason for attempting it. The success of the revolution of the thirteen colonies in North America seems to have had less direct influence in initiating the struggle for independence than the conditions in Spain. In 1808, upon the abdication of Charles IV, Ferdinand VII was proclaimed king in each Spanish-American capital. Shortly thereafter however, and in some places before the proclamation of Ferdinand's accession, emissaries arrived with letters from the Ministers and Council of the Indies, announcing the abdication of Ferdinand, and the confirmation of all the governors and officials by Joseph Napoleon, the new king. This aroused intense opposition. The French successes in the peninsula, however, left the colonies with the suspicion that Spanish power had disintegrated, and the subsequent action of the royalists of Spain and the Spanish Cortes only added to the confusion. A number of leaders who had been

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working toward independence were quick to seize the opportunity, and in first one capital and then in another, organizations were effected and revolutionary agencies set in motion.

The Spanish rule was centered in important cities in which Viceroy appointed by Spain were in authority, supported by garrisons of soldiery. The body of citizenry aside from the native Indians was composed largely of European *emigrés*, many of whom had long been settled in the country and some of whom had inter-married with Negro blood. This Creole population exploited the Indian natives wherever possible and in consequence the natives looked to the Spanish authority for what redress it was possible for them to obtain, and remained sympathetic to the Spanish rather than to the revolutionary cause in most districts. Climatic and geographical surroundings played an important part in the ultimate division of the continent into republics—frequently a nationalistic division would have been hard to discover. The struggle in the south was successful earlier than that in the equatorial section where the leadership of Bolivar, after countless reversals, was to be triumphant.

After the achievement of the independence from Spain there were frequent upheavals. Many were of a purely local nature, some being due to individual ambition or assertiveness and some being little more than neighborly quarrels over boundaries or privileges. Occasionally the struggles were bloody

ones, but the distances to be overcome sufficiently increased the difficulties of warfare under tropical or semi-tropical conditions to prevent many movements on a large scale. In addition, the problems of financing any prolonged conflict wielded an even greater influence.

The decorations issued under such circumstances are of necessity of a more or less makeshift nature, and the record of them is often difficult to obtain, and is sometimes to be had only from the decoration itself. As more stable conditions were brought about the record becomes clearer. It will be seen, that accuracy of statement with regard to some of these decorations is impossible, and that difference in descriptions of awards is to be expected. In the following accounts of decorations awarded by South American republics, a citation is made of the authority responsible for the statements recorded, and this is supported wherever possible by photographic reproduction of the respective medals.

The object of this monograph is to treat *only* of the medallic awards—those which were made to be worn on the person—and *not* the embroidered insignia of honour given by some governments of Latin America.

Many of the Spanish-American countries awarded to their military heroes, in place of a medal, an *Escudo* or embroidered shield or plaque. These varied in size, design and colour, but all were excellently executed, being usually embroidered in gold

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thread on a brilliant background of silk, such as light or dark blue, or red; and sometimes on a white or black ground. The contrast of the gold on the coloured silk made quite as distinguishing a decoration as a silver or gold medal such as many of the European countries bestow.

One of the earliest of such *escudos* was awarded by the government of Buenos Aires for the troops taking part in the battle of Tupiza in Upper Peru November 7, 1810. It was an oval, 2 x 2½ inches, of white silk embroidered with a silver corded edge, within which was the inscription also in silver cord, *LA PATRIA A LOS VENCEDORES DE TUPIZA*.

Another attractive *escudo* is that given by the same authority for the battle against the Spanish forces at the estate called "La Florida," on the banks of the river Piray in Upper Peru on November 9, 1814. This too is of white silk, heart-shaped, 2¾ x 2½ inches, embroidered with light blue silk. The outer edge represents a laurel wreath, then the motto *A LOS VENCEDORES EN LA FLORIDA*, then a corded border. In the centre are two crossed palm branches and three stars, the whole making a most attractive insignia of honour, when sewed on the breast of the uniform coat.

This form of decoration varied in size from an oval 2 x 1½ inches to 3½ x 2¾ inches. As they were attached to the uniform they naturally soiled easily and were not well preserved; hence they are not



often to be found by the collector, even though awarded as late as 1872. (Rosa, *Leyes*, p. 130.)

Some of these shields or *escudos* were made of metal and worn on the uniform's coat-sleeve. These were generally awarded to the troops. It is the intention to include herein all such metallic awards, where information is obtainable.

During the Spanish Colonial period in America many medals and decorations of honour were awarded to the royalist troops. Some of these were authorized by the home government in Spain, such as the Order of St. Ferdinand, the Order of Isabella the Catholic, the Cross for Carthagen de las Indias and many others for Cuba and Porto Rico. These will not be included here, having already been described in Spanish Orders of Chivalry and Decorations of Honour.

The intention of the writer is to include herein only those decorations for military services which were issued in South America, first by the local Spanish authorities and later by the several republics, after they had obtained their independence. Before the separation of the several colonies, many medals and *escudos* were authorized by the various Viceroys and Captains General, who apparently did not need the sanction of the home government to reward the royalist forces. Most of these were designed and executed within the several colonies, and but little information concerning them is obtainable. Possibly the records were destroyed

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during or after the various wars for independence; it would be natural that the patriots should wish to obliterate all reminders of the Spanish regime, under which they had suffered.

In preparing a record such as this, one succeeds only with the help of one's friends. To the officers of South American countries who have provided information, and to the consular officers of the United States who have aided, grateful acknowledgment is hereby made. To Charles H. Roberts, Esq., of Buenos Aires, I would express deep appreciation for valuable assistance. To Mr. Sydney P. Noe I am deeply indebted—without his help these pages might never have been completed.

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## ARGENTINA

The territory of Argentina was discovered by the Spaniards, and settled in the 16th century. In the last quarter of the 18th century the *Colonies of the Plata* included all of the country now known as Argentina, Bolivia, Uruguay, Paraguay, and the Pacific provinces later ceded to Chile by Bolivia and Peru. The capital was Buenos Aires. The revolution for freedom from Spanish rule was started May 25, 1810, under a provisional junta, and six years later the independence of the *United Provinces of the Rio de La Plata* was proclaimed. In January, 1825, these became the Argentine Republic or Confederation. From 1835 to 1852, part of the country was under the Dictatorship of Juan Manuel de Rosas. Buenos Aires separated itself from the Confederation in 1852; seven years later, however, it rejoined the Republic of Argentina. By the treaty of 1881, Patagonia and Terra-del-Fuego were divided between Argentina and Chile.

The Republic of Argentina authorized many awards to officers and soldiers—embroidered shields or plaques, cordons and other evidences of honour; these are omitted from this paper as the intention is to treat only of the medallic awards worn on the person, and conferred for military services.

**MEDAL FOR PERDRIEL.** This was authorized September 5, 1806, for those who took part in the

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engagement at the village of Perdriel, 22 km. from the Capital. The English forces under General William Beresford attempted to seize Buenos Aires in June and July of that year. It is a cast, oval medal, 32 x 22 mm., surmounted by a ribbon or fillet of the same metal. The obverse displays the arms of the city of Buenos Aires, two sailing ships, with a dove of peace in the upper field and an anchor in the lower. On the ribbon is *U<sup>a</sup>T<sup>s</sup> RC<sup>o</sup>Q<sup>s</sup>T<sup>ds</sup> de B<sup>s</sup> A<sup>a</sup>*. (Voluntarios Reconquistadores de Buenos Aires.)

*Premios Militares*, III, p. 128; Rosa, *Monetario*, p. 68, illus.; Rosa, *Leyes*, p. 5; Rosa, *Med. Arg.*, p. 23, illus.

MEDAL FOR BUENOS AIRES, 1807. Authorized January 13, 1809, by a decree of the Junta of Seville, acting in the name of Ferdinand VII for the Spanish troops who had defended the city of Buenos Aires at the time of the second English invasion of that section in July, 1807, when General Whitelock, with a force of 8000 British troops attempted to seize the city and territory, but failed in his endeavour owing to the strenuous resistance of the Spanish colonial forces. This attempt was brought about through the alliance of Spain and France against England, following the French Revolution, when British commerce with Buenos Aires was interrupted.

The medal, of gold or silver, is oval in shape, 49 x 30 mm.; it bears on the obverse the head of





Perdriel  
Tupiza

Buenos Aires  
Aruhuma

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the Spanish king facing to the right, and the inscription *FERNANDO VII REY DE ESPANA Y DE LAS INDIAS* 1808. On the reverse is a laurel wreath within which are crossed palm and laurel branches encircled by *VIRTUD Y BALOR PREMIADO EN BUENOS AYRES*, and in small letters "EN POTOSI," for the mint in which, according to this inscription, the medals were struck. Potosi at that time, was one of the most celebrated silver mining towns in the world. It lies about 13,000 feet above sea level, at the foot of the rich Cerro de Potosi, in territory now belonging to Bolivia.

*Premios Militares*, III, p. 138; Rosa, *Leyes*, p. 9; Medina, *Medallas Coloniales*, p. 72, illus.; Rosa, *Med. Arg.*, p. 30, illus.

MEDAL FOR TUPIZA, 1810. Five months after having declared its independence, Argentine troops under Colonel Antonia González Balcarce, advanced into Upper Peru (now Bolivia) and met a force of Spanish troops under General José de Cordoba y Rosas, at the mining town of Tupiza, near the Argentine border. An engagement took place on November 7, 1810. To reward the troops taking part, the Provincial Junta authorized this oval, uniface, bronze-gilt medal, 42 x 33 mm., November 29, 1810. It bears in the center *LA PATRIA A LOS VENCEDOR<sup>s</sup> DE TUPIZA*. Above is a radiant sun; the whole is enclosed by the legend *ACCION DE GUERRA DEL 7 DE NOVIEMBRE DE 1810*, and a laurel wreath. The top of the oval

is a scroll of ribbon for a suspension loop. The ribbon is half light blue and half white.

*Premios Militares*, I, p. 171-174; Rosa, *Leyes*, p. 12; Rosa, *Med. Arg.*, p. 42, illus.

MEDAL FOR ARUHUMA, 1810. This was awarded the troops for the second victory over the royalists on the field of Aruhuma, in the state of Cochabamba, a central province of Bolivia. It is an oval, silver medal, 27 x 24 mm., in the center of which a radiant sun above palm and laurel branches is encircled by *P(or) L(a) PATRIA ALOS FIELES L.(ibertadors) D(e) COCHABANBA*; outside the inscription is a wreath. The medal is uniface.

*Premios Militares*, I, p. 189; Rosa, *Med. Arg.*, p. 39, illus.

MEDAL FOR RIO DE LAS PIEDRAS, 1812. While assisting the insurgents of Upper Peru (Bolivia), in driving the royalist forces from the country, a minor engagement took place on the Rio de las Piedras, on September 3, 1812. No authority has been found for the issuance of this medal, but a specimen is in the National Historical Museum of Buenos Aires—an oval, bronze-gilt medal, 50 x 40 mm. At the center of the obverse is the word *LIBERTAD*; above this there is a radiant sun and below, a lance and laurel branch crossed. The legend is *LA PATRIA RECONCIDA A SUS NATUR<sup>o</sup> BENEMERITOS HIJOS \**. The reverse is plain.

*Premios Militares*, I, p. 202.

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MEDAL FOR SALTA, 1813. Salta, a city founded in 1582, was an old bishopric in the province of the same name in the northwestern part of Argentina, i. e., south of Jujuy, near the Chilean border. It was on the original trade route from the Peruvian mines to the sea, via the Rio Salado and the Rio de la Plata. At Salta, General Manuel Belgrano (1770–1823) won a victory over the Spanish forces, February 20, 1813, during the revolution for independence.

This medal was authorized March 5, 1813, by the Assembly of the United Provinces of Rio de la Plata. It is an oval of gold or silver, 51 x 40 mm., and bears the early arms of the republic—clasped hands surmounted by a liberty cap on a curved sabre within olive and palm branches; the inscription is *LA PATRIA A LOS VENCEDORES EN SALTA EN 20. DE. FEBRO. DE. 1813* \*.

In *Medallas Coloniales Hispano-Americanas*, p. 98, Medina describes an oval, silver medal, 30 x 23 mm., surmounted by a royal crown and edged with palm and laurel branches, having at the center \* *POR SU LEALTAD Y CONSTANCIA* surrounded by *EMIGDO. DE LA PROV. DE SALTA EN 26 DE FEB. DE 1814* \*. This medal is uniface. The crown and the word “emigrados” of the inscription show that the decoration must have been issued for the royalist participants in the engagement of this date.

Rosa, *Med. Arg.*, p. 60, illus.; *Premios Militares*, I, p. 302; Rosa, *Medallas Coloniales*, p. 98–99, illus.



Rio de la Piedras      Salta  
Cerrito and Montevideo

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MEDALS FOR CERRITO and MONTEVIDEO, 1812–1814. After the Buenos Aires declaration of independence in 1810, the Spanish forces made their headquarters in Montevideo. This city had been founded in 1726, by the governor of Buenos Aires, to check the advance of the Portuguese on that side of the Rio de La Plata. In 1808, the governor of that section had established an independent junta. During the royalist occupation of the city many attempts were made by the patriots to drive them from the stronghold. The first medal of award for the Argentine troops was an oval of silver, 41 x 31 mm., having on the obverse the engraved legend *LA PATRIA A LOS VENCEDORES DEL 31 DE DICIEMBRE DE 1812 Y LIBERTADORES DE MONTEVIDEO EN JUNIO DE 1814*, encircled by laurel and palm branches. The medal was uni-face; the ribbon half light blue and half white.

The medals for Cerrito are ovals, gold plated or of silver, 32 x 30 mm. The medal proper is surmounted by a knot of ribbon, the loop of which serves as a suspension ring. The medal has as its design the rock from which the engagement takes its name, surmounted by a radiant sun. Encircling this is *LA PATRIA RECONCIDA A LOS LIBERTADORES DE MONTEVIDEO*. For the second battle of Cerrito, a medal 39 x 31 mm. is inscribed as above with the addition of *DIC 31 DE 1813*. For the later engagements an oval silver medal, 24 x 22 mm., with laurel branches below and a double



bow of ribbon above, is inscribed *LA PATRIA RECONCIDA A LOS LIBERTAD<sup>o</sup> D. MONTEV<sup>o</sup> 1814*. A variant of the 1814 medal is a uniface oval of silver 40x30 mm., inscribed *LA PATRIA A LOS LIBERTADORES DE MONTEVIDEO 1814* above crossed palm and laurel branches. Large silver plaques, 55 x 45 mm., with eyelets for sewing to the uniform, bore an inscription similar to the above with palm and laurel branches beneath it.

*Premios Militares*, I, p. 216–220; Rosa, *Monetario*, p. 71, No. 222 illus.; Rosa, *Med. Arg.*, p. 69, illus.

MEDAL FOR CHACABUCO, 1817. By a decree of April 15, 1817, medals were awarded to the Argentine soldiers under José de San Martín, who, assisted the Chilean forces led by General Bernardo O'Higgins, and overwhelmed the Spanish forces under General Marco del Pont at Chacabuco, in February, 1817. As a result of this engagement Chile became independent. For these medals see p. 93.

By a decree of December 9, 1817, the Argentine troops were permitted to accept and wear the *Legion of Merit of Chile*, when awarded for this victory of Chacabuco. A description of this decoration will be found under Chile.

*Premios Militares*, I, p. 267 and III, p. 8; Rosa, *Monetario*, p. 72, No. 224 illus.; Rosa, *Leyes*, p. 41; Rosa, *Numismatica*, p. 102 illus.

MEDAL FOR SALTA, 1817. This was authorized November 28, 1817, for the troops taking part

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in the second defence of the city and province of Salta, during the war for independence.

The first class decoration is a six-pointed gold star bearing in the center of the medallion the words *AÑO DE 1817*, around which is *AL MERITO EN SALTA*. That for the second class is a star of gold with a silver center medallion, bearing the same inscription—both seem to have been uni-face, as no inscription of a reverse has been found. The ribbon is light blue.

Rosa, *Leyes*, p. 52.

MEDAL FOR HUMAHUACA, 1817. Authorized April 25, 1817, for the troops attached to the fortress of Humahuaca, in Jujuy, who gained a signal victory over the Spaniards on March 2, 1817. The medal is of gold or silver; a five-pointed star with each ray notched at its extremity. The whole is suspended from a laurel wreath and bears an oval medallion inscribed *EL 2 DE MARZO DE 1817 EN HUMAHUACA*. The reverse is plain and the ribbon is half light blue and half white.

Rosa, *Leyes*, p. 43; *Premios Militares*, I, p. 273–275; Rosa, *Med. Arg.*, p. 82 illus.

MEDAL FOR SAN LUIS CONSPIRACY, 1819. Authorized August 6, 1819, and awarded to those who took part in suppressing the uprising of the Spanish prisoners in San Luis (1819) during the revolution for Argentine independence.

# ARGENTINA

PL. III



Humahuaca  
Ituzaingo

San Luis Conspiracy  
Rio Colorado

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An oval silver medal, 38 x 32 mm., edged with laurel leaves on the obverse and with palm leaves on the reverse, and having on the upper half of the obverse one large hand clasping a sword (right) clashing with three hands holding swords (left), and in the lower part *EL 8 DE FEBRERO DE 1819*. On the reverse upper field a sunburst, and in the lower field *A LOS QUE DEFENDIERON EL ORDEN EN SAN LUIS*. The ribbon is light blue.

Rosa, *Monetario*, p. 73, No. 225; Rosa, *Leyes*, p. 59; Rosa, *Med. Arg.*, p. 90, illus.; *Premios Militares*, I, p. 296-297.

MEDAL OF ORDER, 1819. Awarded October 9, 1819, to those taking part in suppressing the uprising in the province of Buenos Aires, in September, 1819. It is a uniface oval silver medal, 53 x 42 mm., inscribed in the center *LA PATRIA POR MI AMOR AL ORDEN*, encircled by laurel branches. Struck at the mint in Santiago de Chile.

*Premios Militares*, I, p. 299; Rosa, *Med. Arg.*, p. 92, illus.

MEDAL FOR PICHINCHA, 1822. A battle took place on the heights of Pichincha, near Quito, Ecuador, on May 24, 1822, resulting in the defeat of the royalist forces and the liberation of Ecuador. The allied troops of Argentina, Colombia and Peru, were awarded medals for their services by the municipality of Quito and the governments of Colombia and Peru. Description of these medals

will be found under the respective countries of Colombia, Ecuador and Peru. No special medal was awarded by the Argentine authorities for their troops.

*Premios Militares*, III, p. 79.

MEDAL ESCUDO FOR ITUZAINGO, 1827. From 1814, the province of Buenos Aires was involved in a war with Brazil for the possession of the Banda Oriental (Uruguay). The struggle continued until 1828, when, with the assistance of England, Uruguay was declared a free and independent state. At Ituzaingo in Brazil, on February 20, 1827, the Argentine troops under General Carlos Maria de Alvear, won a signal victory over the German, Portuguese and Brazilian forces led by the Marquis de Barbacena. Gold and silver medals for this conflict (52 x 40 mm.), bear in the centre a trophy of arms within palm branches encircled by *LA REPUBLICA A LOS VENCEDORES EN YTUZAINGO*, with *20 DE FEBRERO DO 1827* below. A second form of smaller dimensions (47 x 38) has in centre a trophy of arms on which is superimposed a shield inscribed *FEBRERO 20 1827*, around which is *LA PATRIA A LOS VENCEDORES EN YTUZAINGO*. A third model has *EN YTUZAINGO* in the exergue. All are uniface and made to be pinned to the uniform, rather than suspended.

*Premios Militares*, I, p. 336-340; Rosa, *Med. Arg.*, p. 102, illus.

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MEDAL FOR SALADO, 1830. During the dictatorship of Juan Manuel de Rosas, there were almost continuous disputes with the neighboring districts, and many medals were authorized. That for Salado, authorized July 23, 1830, is an oval of gold or silver, 36 x 32 mm., surmounted by a knot of ribbon. In the center, within laurel and palm branches, is *A LOS VENCEDORES SOBRE EL SALADO EL 10 DE ABRIL DE 1830*. On the reverse is *CORONEL DON ANGEL PACHECO COMMANDEnte EN GEFE DEL DEPARTAMENTO DEL NORTE*. The ribbon is bright red. This medal in gold or silver was given to the commanding officers, and to the soldiers was given a brass shield or *escudo*, with an inscription similar to the obverse of the above medal.

Rosa, *Leyes*, p. 66; Rosa, *Med. Arg.*, p. 106, illus.

MEDAL FOR RIO COLORADO, 1833. This was authorized May 6, 1834; it is an oval of gold or silver, 39 x 32 mm., having on the obverse the arms of Argentina, between palm and laurel branches, encircled by the inscription *LA PROVA DE BUEN<sup>a</sup> AY<sup>a</sup> AL PATRIOTISMO Y AL VALOR*. The reverse is plain and the ribbon is bright red.

A variant of this, for those who died for their country, is inscribed similarly on the obverse and has on the reverse *A LOS QUE MURIERON POR*



*LA SEGURIDAD DE SU PATRIA.* This is 40 x 30 mm., and suspended by a red ribbon.

*Premios Militares*, II, p. 171; Rosa, *Leyes*, p. 68; Rosa, *Monetario*, p. 74, No. 227.

MEDAL FOR INDIAN INSURRECTION, 1836. Authorized October 5, 1839, for the troops taking part in this campaign against the Borogas Indians. The medal is a gold or silver oval, 37 x 30 mm., having on the obverse center the arms of the country within palm and laurel branches and encircled by a laurel wreath, around which is the legend *EL GOV<sup>no</sup> RECONCOCIDO A LA VIRTUD Y AL VALOR MARCIAL*. On the reverse center is a trophy of arms, below which is *BUENOS AYS OCT<sup>re</sup> 1<sup>o</sup> de 1836*. This is encircled by the inscription *VICTORIA CONTRA UNA FUERTE DIVISION DE INDIOS CHILENOS SUBLEVADOS*. The ribbon is red.

Rosa, *Med. Arg.*, p. 133, illus.; Rosa, *Leyes*, p. 87; *Premios Militares*, II, p. 201.

MEDAL FOR SANTA BARBARA, 1837. This medal was authorized August 19, 1837. Gold, silver and bronze ovals 37 x 30 mm., bear on obverse the arms of Argentina on military trophies, encircled by *LA PROVENCIA DE B<sup>a</sup> AY<sup>a</sup> AL MERITO Y AL VALOR* and on the reverse, military trophies and the inscription *A LA MEMORIA DE AL GLORIOUSA JOURNADA DE*

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*SANTA BARBARA EN HUMACUACA EN 13 DE SEP<sup>e</sup> DE 1837.*

Rosa, *Med. Arg.*, p. 121, illus.

MEDAL FOR INDIAN UPRISING, 1837. Authorized October 5, 1837, for the troops under Colonel Antonio Ramirez, who suppressed the Indian uprising on that date. It is an oval gold or silver medal, 37 x 30 mm., bearing on the obverse the arms of Argentina within laurel branches, and encircled by the inscription *EL GOVNO RECONOCIDO A LA VIRTUD Y AL VALOR MARCIAL*. On the reverse are military trophies below which is *B<sup>s</sup> AY<sup>s</sup> OCTRE 2 DE 1837*, encircled by *VICTORIA CONTRA UNA FUERTE DIVISION DE INDIOS CHILENOS ENEMIGOS*. The ribbon is bright red.

Another medal of silver and bronze for an engagement against Indians, in 1838, is described by Rosa, as being of the same size as that above, having the same obverse but on the reverse *BUE-NOS AY<sup>s</sup> DICI<sup>E</sup> 22 DE 1838*, and the inscription *VICTORIA CONTRA UNA FUERTE DIVISION DE INDIOS RANGUELES Y CHILENOS EN-EMIGOS*.

*Premios Militares*, II, p. 185; Rosa, *Med. Arg.*, p. 124 illus., p. 126 illus.; Rosa, *Leyes*, p. 87.

MEDAL FOR PAGO-LARGO. Authorized April 26, 1839, for the troops taking part in the



Indians 1836  
Corrientes 1865



Pago-Largo  
Curupaity



## 26 SOUTH AMERICAN DECORATIONS

action of March 31st, that year, against the forces of Entre Rios. The silver medal, 36 x 28 mm., has on the obverse *VALIENTE DEFENSOR EN LOS CAMPOS DE PAGO-LARGO DE LA LIBERTAD DE LA CONFEDERACION ARGENTINA Y DE LA INDEPENDENCIA AMERICANO*, in seven lines. Below this are crossed flags with a laurel wreath. The whole is encircled by olive branches. On the reverse is *MARZO 31 DE 1839 EL GOBIERNO DE LA CONFEDERACION ARGENT AL PATRIOTISMO Y AL VALOR*, in 5 lines. Above this are the national arms and a sunburst within laurel branches.

The bronze medal has on the obverse *COMBATIO POR LA LIBERTAD Y HONOR AMERICANO EN AL VALIENTE EXER. VENCEDOR EN LOS CAMPOS DEL PAGO-LARGO*.

Below this are crossed flags on a laurel wreath. The reverse is as described above.

The *Historia de las Premios Militares*, Volume II, illustrates the silver medal with the obverse and reverse transposed from above.

Rosas in *Medallas y Monedas de la Republic Argentina* page 128-9, gives the same contradiction of the obverse and reverse of the bronze medal.

*Premios Militares*, II, p. 191; Rosa, *Leyes*, p. 81.

MEDAL FOR CAYASTA, 1839. A revolt took place in Santa Fé when General Lavelle returned with a number of "Unitarians," caused trouble

in the neighboring provinces, and invaded Buenos Aires the following year. For the Argentine troops engaged, gold, silver and bronze oval medals, 31 x 29 mm., were authorized, April 2, 1840, by Rosas. On the obverse are the arms of the republic on military trophies, around which is *MUERAN LOS UNITARIOS. LA PROVINCIA DE B<sup>a</sup> AY<sup>s</sup> AL PATRIOTISMO Y AL VALOR*. On the reverse within a laurel wreath are military trophies encircled by *¡VIVA LA FEDERACION! EL GOBIERNO DE B<sup>s</sup> AYS RECONOCIDO A LA VIRTUD MARCIAL*.

Rosa, *Leyes*, p. 89; *Premios Militares*, II, p. 204; Sculfort, No. 1217; Rosa, *Monetario*, p. 74, No. 228 illus.; Rosa, *Med. Arg.*, p. 134, illus.

MEDAL FOR SAUCE GRANDE, 1840. During the years 1840–1841, there were frequent conflicts with the “Unitarian” forces led by General Juan Lavalle, who unsuccessfully attempted to overthrow the Rosas government. On July 16, 1840, an engagement took place at Sauce Grande, in the province of Entre Rios<sup>1</sup> which resulted favourably for the Federal forces, for whom this medal was authorized December 17, 1840. It was of gold, silver and bronze. The medals for officers were inscribed on the obverse *VIVA LA CONFEDERACION AR-*

<sup>1</sup> *Entre Rios* (meaning “between rivers”) is a province of Argentina, north of that of Buenos Aires, beginning at the confluence of the Paraguay and Uruguay Rivers, and extending northward between said rivers to the province of Corrientes.

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*GENTINA. VALIENTE DEFENSOR EN LOS CAMPOS DE SAUCE GRANDE DE LA LIBERTAD DE LA CONFEDERACION ARGENTINE Y DE LA INDEPENDENCIA DEL CONTINENTE AMERICANO.* On the reverse are the arms of the country and military trophies with the inscription *¡MUERAN LOS SALVAGES UNITARIOS! JULIO 18 DE 1840 EL GOBERNADOR DE LA CONFEDERACION ARGENTINA AL PATRIOTISMO Y AL VALOR.* The brass medal for the troops was inscribed on the obverse, *VIVA LA CONFEDERACION ARGENTINA COMBATIO POR LA LIBERTAD Y HONOR AMERICANO EN EL VALIENTE EJERCITO VENCEDOR EN LOS CAMPOS DE SAUCE GRANDE.* The reverse is the same and the ribbon is deep scarlet.

*Premios Militares*, II, p. 209; Rosa, *Leyes*, p. 91.

MEDAL FOR QUEBRACHITO, 1840. Authorized December 17, 1840, for those taking part in the engagement against the "Unitarians" in the wilderness of Quebrachito, November 28, 1840. The gold and silver medals for officers had on the obverse, between palm branches, the inscription *VIVA LA CONFEDERACION ARGENTINE VALIENTE DEFENSOR EN LOS DESIERTOS DEL QUEBRACHITO DE LA LIBERTAD DE LA CONFEDERACION ARGENTINE Y DE LA INDEPENDENCIA AMERICANO.* On the reverse appear the arms of the country, military

trophies, and *MUERAN LOS SALVAJES UNITARIOS NOVIEMBRE 28 DE 1840 EL GOBIERNO DE LA CONFEDERACION ARGENTINA AL PATRIOTISMO Y AL VALOR*. The brass medal for the troops bore on the obverse *VIVA LA CONFEDERACION ARGENTINE COMBATIO POR LA LIBERTAD Y HONOR AMERICANO EN EL VALIENTE EJERCITO VENCEDOR EN LOS DESIERTOS DEL QUEBRACHITO*. The reverse was similar to the officer's medal, and the ribbon is dark red.

*Premios Militares*, II, p. 214; Rosa, *Leyes*, p. 95.

MEDAL FOR SAN CALA, 1841. This medal in gold, silver and brass, was authorized by Rosas, February 28, 1841, for those taking part in the victorious engagement at San Cala, January 8, 1841. The inscriptions on these medals were similar to those for Quebrachito, with the exception of the name of the engagement. The ribbon was scarlet.

*Premios Militares*, II, p. 219; Rosa, *Leyes*, p. 99.

MEDAL FOR CORRIENTES, 1843. The General Congress of Corrientes<sup>1</sup> established on September 19, 1843, gold, silver and brass medals

<sup>1</sup> *Corrientes* is an eastern province of Argentina, north of Entre Rios, between the Parana and Uruguay Rivers. Many streams have their source in this region.

### 30 SOUTH AMERICAN DECORATIONS

for Colonel Joaquin Madariaga and the troops commanded by him who marched through Uruguay and liberated the province of Corrientes in August of that year. On the obverse is inscribed *LIBERTO LA PATRIA 30 DE AGOSTO DE 1843*. On the reverse is *PROVINCIA DE CORRIENTES*. The ribbon is half light blue and half white.

*Premios Militares*, III, p. 173; Rosa, *Leyes*, p. 104.

**MEDAL FOR RIO SALADO.** By a decree of December 19, 1856, one gold medal for the leader and 100 silver medals for the officers and troops, were authorized for General Antonino Taboada and those who accompanied him on the exploring trip up the River Salado in 1856. The medals were 64 x 58 mm.—on the obverse is a trophy with the national arms, with *CONFEDERACION* above and *ARGENTINA* below. On the reverse is an allegorical figure of the river, and between a laurel and palm branch is *RIO SALADO MDCCCLVI*. The ribbon is half light blue and half white.

*Premios Militares*, II, p. 114; Rosa, *Leyes*, p. 112.

**MEDAL FOR PAVON, 1861.** During this year hostilities commenced between the rival factions under General Mitre, Governor of Buenos Aires and General Urquiza, Governor of Entre Rios. Mitre was victorious at the battle of Pavon on December 17, 1861; Mitre was elected President of the Argen-



tine Confederation in 1862, and Buenos Aires became the capital. No authorization has been found for the issuance of a silver medal, 33 mm. in diameter, having on the obverse the arms of Argentina within a laurel wreath, and encircled by *BATALLA DE PAVON 17 SETIEMBRE DE 1861*. On the reverse, within a laurel wreath, and with a radiant sun above, *COMBATIO CON GLORIA POR LA LIBERTAD DE LA REPUBLICA ARGENTINA*. The ribbon has three equal stripes—a white one at the center with blue on either side.

*Premios Militares*, III, p. 257.

MEDAL FOR CORRIENTES, 1865. Issued by the Argentine Confederation, August 19, 1865, during the five year war with Paraguay when the president of that country, Francisco Solana Lopez (1826–1870), passed through the province of Corrientes, in invading Brazil. The oval medal, 34 x 26 mm., of gold, silver or bronze, has on the obverse the arms of Argentina<sup>1</sup> encircled by *LA REPUBLICA ARGENTINA A LOS VENCEDORES EN CORRIENTES*, and on the reverse a radiant sun<sup>2</sup> and *25 DE MAYO* at the top, with *1865* below. The

<sup>1</sup> The arms of Argentina are an oval, having in the upper field of blue a Phrygian cap on a staff which crosses the lower white field bearing two clasped hands signifying unity. Above is a sun, the whole being encircled by laurel branches and resting on crossed flags.

<sup>2</sup> Instead of the customary full-faced head, there is on this medal the much smaller head of a girl at the center of the sunburst.

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ribbon has three equal stripes—light blue at sides and white in center.

Rosa, *Leyes*, p. 119; *Premios Militares*, II, p. 12; Rosa, *Med. Arg.*, p. 141.

METAL ESCUDO FOR CURUPAITY, 1866. On September 22, 1866, an engagement took place at Curupaity, which is near the junction of the Paraguay and Parana Rivers, between the allied forces of Argentina and Brazil, against the Paraguayans. On September 24, gold, silver and copper oval *escudos*, 40 x 31 mm., were authorized. These were not to be suspended, but fastened by bars through the rings in the coat. On the obverse were the arms of Argentina within laurel branches, encircled by *HONOR AL VALOR Y DISCIPLINA\* REPUBLICA ARGENTINA\**.

*Premios Militares*, II, p. 66–67; Rosa, *Leyes*, p. 130.

MEDAL OF CORRIENTES FOR NATIONAL GUARD, 1865–1869. By a law of December 10, 1869, the province of Corrientes authorized a medal in gold, silver and copper, 31 mm. in diameter, for the troops of the National Guard who took part in the war with Paraguay. On the obverse are the arms of Corrientes, surrounded by the inscription *GUARDIA NACIONAL DE CORRIENTES\**, and on the reverse center, within a laurel wreath, is *AL VALOR Y LA CONSTANCIA LA PROVINCIA AGRADECIDA*, encircled by *CAMPANA DEL PARAGUAY 1865 A 1869*. Between

# ARGENTINA

PL. V



Corrientes National Guard  
National Guard Buenos Aires

Paraguay  
Chaco

### 34 SOUTH AMERICAN DECORATIONS

the extremities of the wreath is *R. GRANDE*—apparently the name of the engraver. The ribbon has three equal stripes—light blue, white and light blue.

*Premios Militares*, II, p. 86; Rosa, *Leyes*, p. 127.

**MEDAL OF CORDOBA FOR NATIONAL GUARD.** By a provincial law of December 14, 1869, these gold and silver medals were authorized for the National Guard of Cordoba participating in the war with Paraguay. On the obverse, within laurel branches, is *A LA GUARDIA NACIONAL*, encircled by *LA PROVINCIA DE CORDOBA*. On the reverse center, within laurel branches, is *CAMPAÑA DEL PARAGUAY DE 1865-1869*, encircled by *AL VALOR CONSTANCIA Y DECISION*.

*Premios Militares*, II, p. 89; Rosa, *Leyes*, p. 125.

**MEDAL FOR PARAGUAYAN WAR, 1865-1870.** By decrees of September 28, 1866, and November 17, 1871, gold, silver and bronze medals, 31 mm. in diameter, were awarded to the men who served during this campaign. On the obverse are the arms of the republic on an oval medallion supported by flags and trophies of war, with the legend, *EJERCITO ARGENTINA*, above, and *DE OPERACIONES CONTRA EL PARAGUAY* below. On the reverse is a radiant sun encircled by *AL VALOR Y LA CONSTANCIA*, and below, *\*LA*

*NACION AGRADECIDA*\*. The ribbon is light blue with a white stripe in the center.

*Premios Militares*, II, p. 73; Rosa, *Leyes*, p. 121; Rosa, *Monetario*, p. 76, Nos. 235, 236.

CROSS FOR NATIONAL GUARD OF BUENOS AIRES, 1865. This was awarded (decree of December 16, 1869) by the province of Buenos Aires, to the troops of the National Guard from that district participating in the war with Paraguay. It is a ten-pointed gold or silver star, (43 mm. in diameter), with an oval center bearing the arms of the Republic within oak and laurel branches and encircled by *GUARDIA NACIONAL DE BUENOS AYRES*. On the reverse is the inscription *AL VALOR Y A LA CONSTANCIA. LA PROVINCIA AGRADECIDA*, encircled by *CAMPANA DEL PARAGUAY 1865 A 1869*\*. The ribbon is white with two lateral blue stripes, and two widths are displayed. It is arranged over a trapezoidal frame, the shorter width being at the top.

Rosa, *Leyes*, p. 123; Rosa, *Monetario*, p. 77, No. 238 illus.; *Premios Militares*, II, p. 94; Meili, p. 15.

MEDAL FOR ALLIES IN PARAGUAYAN WAR, 1865-1870. By a law of August 20, 1889, this medal was authorized by Argentina, for the troops of the allied governments of Brazil and Uruguay, taking part in the five years war against the Paraguayan dictator Lopez. The medals were

### 36 SOUTH AMERICAN DECORATIONS

of gold, silver and copper, 30 mm. in diameter, having on the obverse the arms of Argentina within laurel branches, encircled by *REPUBLICA ARGENTINA AL EJERCITO ALIADO EN OPERACIONES CONTRA EL GOBIERNO DEL PARAGUAY*\*. On the reverse center is a radiant sun encircled by *AL VALOR Y A LA CONSTANCIA*, above, and *LA NACION AGRADECIDA*, below. The ribbon has three equal stripes of light blue, white and light blue.

Rosa, *Leyes*, p. 139; *Premios Militares*, II, p. 99; Rosa, *Med. Arg.*, p. 154.

MEDAL FOR CHACO, 1870-1884. For many years the uncivilized Indian tribes of northeastern Argentina were a source of trouble to the residents of Santa Fé and Corrientes. Several expeditions were necessary to suppress uprisings. To reward the troops taking part in these various campaigns, the National Congress authorized (law of August 7, 1888) the award of gold, silver and copper medals. These were 30 mm. in diameter, and bear on the obverse the arms of the country, encircled by *CAMPAÑA DEL CHACO*. On the reverse within laurel branches is, *LA NACION ARGENTINA*. The ribbon is light blue with narrow white, lateral stripes. Bars were worn on the ribbon, indicative of the respective campaigns—Expedicion 1870; Expedition 1876 &c. The other years are 1880, 1881, 1883 and 1884.

*Premios Militares*, II, pp. 139-157; Rosa, *Leyes*, p. 136.

MEDAL FOR REVOLUTION OF 1880, IN BUENOS AIRES. This is a round, silver or plated medal, 27 mm. in diameter, having on the obverse a sword and a palm branch crossed, with the arms of Argentina below, and *HONOR A LOS DEFENSORES DE LAS LIBERTADES DE BUENOS AYRES*. On the reverse center is 15 FEBRERO 1880, encircled by *EL PUEBLO AGRADECIDO\**.

Rosa, *Med. Arg.*, p. 334, illus.

MEDAL FOR RIO NEGRO AND PATAGONIA. Awarded by decree of October 27, 1881, to the troops under General Roca, who participated in the campaign against the Patagonian Indians of the southwest, in what is now the province of Rio Negro, and which resulted in the final occupation of the territory in May, 1881. It is an oval of gold, silver or bronze, 33 x 25 mm., having on the obverse the arms of the republic, encircled by *CAMPANA DEL RIO NEGRO Y PATAGONIA\* 1878\**, and on the reverse a radiant sun and *LA NACION AL EJERCITO DEL SUD\* 1881\**. The ribbon is blue with a white stripe one-third of its width at the center.

Rosa, *Leyes*, p. 133; *Premios Militares*, II, p. 116; Rosa, *Monetario*, p. 78, illus.

MEDAL FOR CAMPAIGN OF THE ANDES. By a law of July 20, 1885, this was awarded the

### 38 SOUTH AMERICAN DECORATIONS

troops taking part in the troubles with the Indians of the southwest, during the presidency of Julio Roca. It is of gold, silver or bronze, 31 mm. in diameter, having on the obverse upper field eight mountain peaks and in the lower field, 1882-1883, within palm and laurel branches, and *CAMPAÑA DE LOS ANDES*, below. On the reverse, the arms of the republic are encircled by *2a DIVISION DEL EJERCITO*. The ribbon is blue and white.

*Premios Militares*, II, p. 126; Rosa, *Leyes*, p. 135; Rosa, *Monetario*, p. 78 illus.

**MEDAL FOR REVOLUTION OF JULY, 1890.**  
In 1889, the "Union Civica" was founded—a body composed of many of the better class citizens of Buenos Aires. In 1890, aided by some regiments of the regular army and by the fleet, they fought for several days in Buenos Aires against the forces of President Juarez Celman. They finally succeeded in forcing him to resign, and Carlos Pellegrin became President. This oval medal, 33 x 25 mm., surmounted by a radiant sun and edged with laurel branches, bears on the obverse a figure of Liberty, with a sun and mountains in the field, and trophies of war below. In the exergue is *26 JULIO 1890*. On the reverse is *EL PUEBLA ARGENTINO A LOS DEFENSORES DE LA LIBERTAD NACIONAL*.

Rosa, *Monetario*, p. 80, illus.; Rosa, *Med. Arg.*, p. 351, illus.



# ARGENTINA

PL. VI



Rio Negro  
Catamarca



Andes  
Ringuelet

## 40 SOUTH AMERICAN DECORATIONS

MEDAL FOR CATAMARCA, 1891. During the troubles of 1890–1892, a revolution broke out in the Andean Province of Catamarca, and this medal was authorized for the troops taking part in its suppression. It is a bronze, shield-shaped medal, edged with laurel branches and with a sun above. On the obverse oval appear the arms of the country, and on the reverse, *REVOLUCION DE CATAMARCA\*\* JUNIO 23 DE 1891*.

Rosa, *Med. Arg.*, p. 354, illus.

MEDAL FOR RINGUELET, 1893. Another revolution, by forces led by Dr. Alem, took place in 1893 in Buenos Aires and Santa Fé. This was finally suppressed in August of that year, and a bronze medal (see illustration for shape), 32 x 29 mm., was issued. On the obverse are the arms of Argentina encircled by *EL GENERAL CAMPOS A LOS VALIENTES EN RINGUELET*. On the reverse is *RECUERDO AL 8 DE AGOSTO DE 1893*.

Rosa, *Med. Arg.*, p. 358, illus.

MEDAL OF SANTA FE, 1893. On the occasion described above, the Province of Santa Fé instituted a bronze medal, 32 mm. in diameter. It bears in the obverse center, an oval on which are the arms of the province—(two inverted arrows and an upright spear tied with a ribbon, and nine stars), and the legend *REVOLUCION DEL 30 DE JULIO DE 1893*. The reverse inscription is *VALOR*

*CONSTANCIA PATRIOTISMO*, encircled by  
*EL PUEBLO DE LA PROVINCIA A SU DE-  
FENSOR*. No description of the ribbon has been  
obtained.

Rosa, *Med. Arg.*, p. 358, illus.

## 42 SOUTH AMERICAN DECORATIONS

### BOLIVIA

The earlier history of Bolivia is inseparable from that of Peru. In the Spanish Colonial period it was called Upper Peru, and was part of the viceroyalty of Peru. Bolivia became independent in 1829, and was united with Peru from 1836 to 1839; a separation was forced by Chile who feared the federation. Bolivia was attacked by Chile in 1879, and for four years carried on a war in which she was assisted by Peru.

Because of Bolivia's connection with Peru, some writers have classed as Bolivian certain medals which we believe to belong to Peru, and the reader is referred to those recorded under the latter country for an inclusive list.

The geographical position of Bolivia imposed on that country all of the disadvantages of isolation, even in times of peace. In consequence, we find that decorations of the country bear evidences that they are of native manufacture and not highly finished. Most of them seem to have been made at the national mint at Potosi. They partake of the nature of the coins issued there, in the making of which the Potosi mint had long been engaged.

In the Cabinet of the American Numismatic Society there is a collection of seal impressions from medal-dies still in possession of the Bolivian mint

and from these it is possible to deduce something about the making of these medals. The illustration of the Medal for Socabaya will disclose a radiant star, silver gilt, and a planchet of silver bearing the same star from the same dies. This star must have been struck first in the circular form and the plain segments then cut away, leaving the star as it is now seen. Another medal in which the same procedure seems to have maintained is the decoration for Ingavi. It is not certain whether the medals were issued in the round form and later cut out by the individuals to whom they were awarded or whether there may have been no intention of having them altered from the original rounded form. It is hoped that further details regarding this procedure may be brought to light.

MEDAL FOR AYOHUMA, 1815. The battle of Ayohuma, near Potosi, was one of the engagements lost by the revolutionists during the struggle for independence. General Manuel Belgrano (1770–1820), led the Bolivian-Argentine forces against those of Spain. The Spanish medal for this engagement, awarded by General Joaquin de la Pezuela, is a silver rhomboid, 54 x 39 mm., having around the sides *RECUPERO LAS PROV D POTOSI Y CHARCAS*<sup>1</sup> *EN LA BATALLA*, and in the center is *AYOHUMA 14 DE NOBRE DE 1815*.

Medina, *Medallas Coloniales*, p. 98, No. 73.

<sup>1</sup> The province of Charcas, the Indian name of which is Chuquisaca, was a bishopric founded in 1552, as part of

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**BOLIVIAN MEDAL FOR AYACUCHO, 1824.** This was authorized by a decree of the independent government issued from the capital at Chuquisaca, August 11, 1825. It was awarded to the patriot troops under Bolivar and General Sucre for their victory over the Spanish forces led by the Viceroy La Serna, at Ayacucho on December 9, 1824.

It is an oval, gold or silver medal, 42 x 36 mm., bearing on the obverse the mountain of Potosi, with a trophy of arms and flags in pyramidal form, on which is a figure (of Bolivar) holding a staff bearing a liberty cap. In the exergue is *POTOSI*, and in the upper field a radiant sun. On the reverse, within laurel branches, is *LA REPUBLICA BOLIVAR AGRADECIDA AL HEROE CUYO NOMBRE LLEVA*. See also Peru.

Rosa, in his *Coleccion de Leyes, Decretos*, etc., 1891, and in *Monetario Americano*, 1892, classes this as for Ayacucho; while his *Numismatica*, 1904, places it under Potosi.

Rosa, *Leyes*, p. 292-293.

**MEDAL FOR COBIJA, 1825.** Cobija, or Puerto la Mar, a seaport town and formerly Bolivia's port, is now part of the Chilean province of Antofagasta. This is an oval silver medal, 34 x 30 mm., awarded to the Bolivian troops taking part in the war for

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the Spanish vice-royalty of Peru. The name was changed in 1840, to Sucre, in honour of the patriot who aided in gaining the independence of the country. The city of Charcas was the first Spanish South American city to revolt from the Spanish rule (May 25, 1809).

# BOLIVIA

PL. I



Ayacucho

Cobija 1825

Callao

## 46 SOUTH AMERICAN DECORATIONS

independence. The obverse bears the early form of the arms of Bolivia with *BOLIVIA A SUS DEFENSORES* above, and six stars below. The reverse edge is beaded and in the lower field is an oval of rope, within which is a sailing ship; above this is *EN COBIJA*. A variant has on the reverse the seated figure of Justice, holding a sword in the right, and scales in her left hand.

Fonrobert, No. 9745.

CROSS FOR CALLAO, 1826. Awarded by President Antonio José Sucre (1793-1830), to the Bolivian troops aiding in the defence of Callao, Peru, against the Spanish. The decoration is a green-enamelled cross of six arms, bearing on the obverse medallion the head of the president encircled by a band inscribed *BOL A LOS VENC DEL CALLAO*. On the reverse are the arms of Bolivia. The ribbon is red, blue and white.

MEDAL FOR CALLAO, 1826. This is an oval silver medal, 32 x 30 mm., with beaded border, bearing on the obverse center a tower with a soldier on a ladder; on its base *RENDIDO EL CALLAO AL VALOR SIN EJEMPLO*. On the reverse, within palm and laurel branches, is a tower from which a flag is flying; above is *TOMA DEL CALLAO*, and below *ANO DE 1826*.

CROSS OF BOLIVAR. No authority mentions the creation of this decoration, of which in Schul-



man's catalogue of February 9, 1926 (No. 64), a pattern piece was described. A silver medal, 33 mm., in the form of a double-pointed, five-armed cross, with rays in the angles bears in the obverse center the bust of Bolivar facing to the right, and *LIBERTADOR SIMON BOLIVAR*. On the reverse are the arms of Bolivia and *REPUBLICA BOLIVIANA*.

MEDAL OF BOLIVAR. A pattern for an oval, silver medal is known. It is 33 x 28 mm., and bears on the obverse the bust of Bolivar in uniform, facing to right; above is the inscription, *A SU LIBERTADOR SIMON BOLIVAR*. On the reverse are the arms with six stars below, and *REPUBLICA BOLIVIANA* above. A variant has for the obverse inscription, \* *SIMON BOLIVAR LIBERTADOR DE COLOMBIA Y PERU PADRE DE BOLIVIA*. Still another variant, 35 x 30 mm., has on the reverse the arms of Bolivia, with six stars below, encircled by the inscription, *EL SENADO RECONOCE LOS GRANDES SERVICIOS DE SU GRAN CUIDADANO\**.

Fonrobert, No. 9458; Salbach, No. 1554.

MEDAL OF MERIT. This is a gold or silver medal, 46 mm. in diameter, having on the obverse the uniformed bust of Bolivar facing right, and in the field *PREMIO DEL VALOR*.

Salbach, No. 1555.

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MEDAL FOR YANACocha, 1835. During this year two political factions were struggling for control of Peru, and Santa Cruz went to the aid of the Peruvians, defeating Gamarra at Yanacocha, August 13, 1835. One silver medal, 35 mm. in diameter, bears on the obverse a sunburst in the center of which are the early arms of Bolivia, with *REPUBLICA BOLIVIANA* above and six stars below; and on the reverse center within a circle is *AUCILIANDO AL PERU\**, with the field inscribed, *EN 13 DE AGOSTO D 1835*. See also medals described under Peru.

A variation of this medal is a silver oval, 32 x 27 mm., having on the obverse *VENCEDOR EN YANACocha* within a palm and laurel wreath, and on the reverse the combined arms of Bolivia and Peru.

In Schulman's catalogue of the Salbach Sale a round silver medal, 29 mm. in diameter is listed. It bears on the obverse the arms of Argentina on a seven-pointed star which in turn is enclosed by another seven-pointed star ball-tipped with curved arms; and on the reverse, within a circle, *VENCI EN YANACocha*, superimposed on a twelve-armed double-pointed cross. It is said to have been awarded to Argentine troops.

Fonrobert, No. 9263; Rosa, *Monetario*, p. 211, Nos. 716, 717, illus.; Salbach, No. 2372.

CROSS FOR SOCABAYA, 1836. In 1835, a factional war took place in Peru, and Bolivian

BOLIVIA

PL. II



Medal of Merit  
Yanacocha 1835

## 50 SOUTH AMERICAN DECORATIONS

troops were sent into that country by President Santa Cruz.<sup>1</sup> They were victorious over the forces of Gamarra, at Socabaya, Peru, February 7, 1836. About this time Chile sent troops to the assistance of Peru, and after three years of warfare, the Bolivian forces were defeated at Jungay, in June, 1839, and Santa Cruz exiled. The Bolivian decoration for the battle of Socabaya, is a white-enamelled star of five points, superimposed on a green oak wreath, having in the white medallion, *7 DE FEBR DE 1836*, encircled by a red band inscribed *VENCEDOR EN SOCABAYA*. On the reverse medallion are the arms of Bolivia.<sup>2</sup> The ribbon is green, red and green.

Salbach, No. 1555a.

**MEDAL FOR SOCABAYA 1836.** This is an oval silver or bronze medal, 30 x 26 mm., having on the obverse an oval of rays and dots, within which is a dove holding a laurel branch in its beak, and below *DI LA PAZ AL PERU*. On the reverse,

<sup>1</sup> Andres Santa Cruz was an Indian statesman. His mother was a lady of high rank, of the family of the Incas. Of this he was very proud. While not a successful military leader, he possessed great administrative ability, and for nearly three years (1836-1839) he realized his dream of a confederation between Peru and Bolivia.

<sup>2</sup> The arms of Bolivia at this time were a banded oval at the top of which is *BOLIVIA*, and below, nine stars, surmounted by a condor on a wreath; the whole superimposed on draped flags. In the center of the oval are three mountain peaks, before which are a llama, a tree and a sheaf of wheat; in the upper field a sun.

BOLIVIA

PL. III



Socabaya 1836  
Ingavi 1841

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within palm and laurel branches is an oval inscribed *EN SOCABAYA A 7. DE FEBRER DE 1836*. A variant of this medal has on the obverse the arms of Bolivia, above which is *LA PATRIA PREMIA UN BUEN SERVICIO*, while still another variety has on the obverse the combined arms of Bolivia and Peru, with a reverse similar to the first described obverse above.

A larger silver medal, 42 mm. in diameter, was struck, having on the obverse a five-armed, double-pointed cross superimposed upon a laurel wreath, bearing in the circular centre a dove holding a laurel wreath, encircled by band inscribed *DI LA PAZ AL PERU*. On the reverse is a small circular medallion inscribed *EN SOCABAYA A 7 DE FEBRERO* with *DE 1836* in the centre.

The dies for the above described medals are now at the Bolivian mint at Potosi.

**CROSS OF PERU, 1836.** This decoration, awarded after the Peru-Bolivian Alliance of 1836–1839, is classed by some writers with the Peruvian war decorations. It is a silver cross of five arms, 55 mm., enamelled white, having in the center medallion a figure of Peace in gold on a blue field, encircled by a white band inscribed in gold *DI LA PAZ AL PERU*. On the reverse, in gold on a blue field, is *ANO 1836*, encircled by a band inscribed *GRATITUD AL EJERCITO BOLIVIANO*. The ribbon is red, white and green of equal stripes.

Salbach, No. 1014.

MEDAL FOR SOUTHERN ARMY, 1838. This was awarded for the campaign in southern Peru, during 1838, when General Sucre had obtained control over part of that country. It is an oval, silver medal, 30 x 25 mm., having on the plain obverse *VALOR LEALTAD Y CONSTANCIA*, and on the reverse, within a beaded border, *HONOR AL EJERCITO DEL SUD* 1838.

Fonrobert Cat. No. 9516.

CROSS FOR INGAVI (Yngavi), 1841. In August, 1841, President Augustin Gamarra (1785-1841) of Peru, attempted to invade Bolivia and annex the rich province of La Paz. He besieged the capital, but in a battle with the Bolivians, led by General (later President) José Ballivian (1804-1852), at Ingavi, on the 18th of November, 1841, Gamarra himself was killed and his troops routed. Ballivian then attempted to invade Peru, but was prevented by Chilean interference.

The Bolivians taking part in this engagement seem to have been awarded a variety of decorations.

In the National Historical Museum of Buenos Aires is a decoration which is said to have belonged to Colonel Juan Andres del Campo. It is gold, in the form of a six-armed cross, double-pointed, and enamelled in the Bolivian national colours, superimposed on a green-enamelled laurel wreath. On the obverse center medallion is the column, or monument of Ingavi, surmounted by a radiant

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sun; around the whole on a red-enamelled band is inscribed *SALVE LA PATRIA Y SU GLORIA EN INGAVI*. On the reverse medallion are three mountain peaks with *18 DE NOVIEMBRE DE 1841*. The suspension ring is an oval laurel wreath.

The Marco del Pont collection has a similar decoration in silver and Casa Pardo have one of gold without enamel, while the American Numismatic Society possesses a specimen of brass, 34 mm. in size.

Another variety is a double-pointed, four-armed cross, of black enamel, with rays in the angles and similar designs and inscriptions on medallions; while a third cross is in the collection of Mr. C. H. Roberts of Buenos Aires. This is a silver four-armed cross, enamelled white, superimposed on a green wreath of laurel surmounted by a flat laurel wreath, but with an obverse bearing the column of Ingavi encircled by a red-enamelled band inscribed *VENCI EN INGAVI*.

Still another variant exists in the Municipal Museum of Buenos Aires, which is a five-armed cross as first described, with the obverse inscription reading *VENCI EN YANACocha AUXILIANDO AL PERU*, and the reverse legend *INGAVI 18 DE NOVIEMBRE DE 1841*. Other variations seem to have been made, but the differences are not sufficiently distinctive to warrant their description.

*Filatel. Argen.*, May 1927, p. 602; *Revista Filatelica*, December 1928, p. 8; Sculfort, No. 1231.



MEDAL FOR INGAVI, 1841. While no decree authorizing these medals has been found, several have been described in auction catalogues, and some are displayed in the National Museum at Buenos Aires. One is an oval, silver medal, 45 x 40 mm., bearing on the obverse shield crossed cannon and the arms of the republic, encircled by *REPUBLICA BOLIVIANA*, and on the reverse within laurel branches, *YNGAVI 18 DE NOVIEMBRE 1841*. Another round medal, 43 mm. in diameter, has on the obverse *SALVE LA PATRIA Y SU GLORIA EN ENGAVI*, and on the reverse, within laurel branches, *18 DE NOVIEMBRE DE 1841*.

Another similar medal bearing a four-armed cross of the same size with three club-rays in each of the angles, and a smaller six-armed cross with the tips of the arms joined by a wreath, both with the inscriptions given above, may be pattern pieces.

Schulman, in the Eyndhoven catalogue of March 17, 1924, illustrates, under No. 2453, a silver medal of same size, having on the obverse, within an eight-pointed star, the monument and ten mountain peaks, encircled by the inscription *PREMIO DE HONOR*, while the reverse has, within a laurel wreath, *YNGAVI 18 DE NOVIEMBRE 1841*.

Rosa, in *Monetario Americano*, No. 718, describes still another variety—a silver medal, 45 mm. in diameter, having on the obverse a five-armed cross with curvilinear arms, ball-tipped, and with rays

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in the angles. On the center medallion are the combined arms of Bolivia and Peru, encircled with the inscription *VENCI EN YANACUCHA*<sup>A</sup> *\*AUCILIANDO AL PERU\**, and on the reverse, within a laurel wreath, *YNGAVI 18 DE NOVIEMBRE 1841*.

Fonrobert, Nos. 9790, 9791, 9792, 9794; Rosa, *Monetario*, p. 212, No. 718 illus.

POTOSI MEDAL, 1857. In September, 1857, Dr. José Maria Linares started a revolution to overthrow General Jorge Cordova as President. In this he was successful; Cordova was compelled to leave the country and Linares became Dictator, but fresh disturbances took place and he too was deposed in 1861. To reward the troops taking part in the revolutionary movement, these oval, silver and gilt medals, 36 x 30 mm., were issued by the City of Potosi.

There seem to be three varieties of these medals, the first (a gilt medal in the collection of the American Numismatic Society) has on the obverse center three mountain peaks encircled by a garland of flowers, above which is a radiant all-seeing eye. Below are military trophies and a liberty cap. On the upper border is *DIOS PROTEJE LA CAUSA D LOS PUEBLOS*. In the lower border are nine stars. On the reverse, within a laurel wreath, is *LOS HIJOS DE POTOSI A SUS HERMANOS LOS DEFENSORES DE LA CAUSA NACIONAL EN 20 DE OCTUBRE 1857*.



Medal for 1865      Potosi 1857      Callao Cross 1866

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A silver variety illustrated by Schulman in the Eyndhoven catalogue of March 17, 1924 (No. 2450), has the same obverse as above, but on the reverse is a radiant sun in the upper field, below which is *LOS HIJOS DE POTOSI A SUS HERMANOS LOS DEFENSORES DE LA CAUSA NACIONAL EN*.

There is a variant of this medal with the same reverse as the Eyndhoven medal, but with a different obverse. Above the center design are nine stars, and below the inscription *EN 20 OCTUBRE DE 1857*.

Fonrobert (No. 9620) describes a medal with a reverse inscribed *CONSEJO DE ESTADO* within two laurel branches tied below. The obverse for this piece is like that of the variant immediately preceding.

Fonrobert, Nos. 9620, 9621; Sculfort, No. 1230.

**MEDAL FOR 1865.** The revolution which took place under the leadership of General Maria Melgarejo, resulted in February of 1865, in the final defeat of the troops of President Dr. Maria de Acha, near Potosi; Melgarejo became President, only to have two other revolutions to suppress in 1865 and 1866. This oval silver or gilt medal, 43 x 36 mm., has on the obverse a uniformed bust of General Melgarejo facing left, and the inscription *EL JENERAL MELGAREJO AL VALOR Y LEALTAD \*DE LOS DEFENSORES DE\* LA CAUSA*

*DE DICIEMBRE 1865*. On the reverse, within oak and laurel branches, is *DIBRE 28, ENERO 31, MARZO 27, SETBRE 5*, with a radiant all-seeing eye in upper field. Rosa in *Monetario Americano*, No. 747, shows this medal with a condor holding laurel branches in its talons as the suspension device.

A smaller medal, 26 x 21 mm., of white metal, was issued with an abbreviated inscription (Fonrobert, 9674).

Fonrobert, No. 9673, 9674.

MEDAL OF POTOSI, 1865. Given by the City of Potosi, to the troops taking part in suppressing the revolutionary movement of that year. An oval silver medal, 37 x 26 mm., having on the obverse, *SALVADOR DE LA PATRIA Y SU PACIFICADOR EN 1865\**, with the head of Gen. Melgarejo to l. On the reverse is *POTOSI A S E EL JEN-ERAL MARIANO MELGAREJO*. On the suspension bar is a condor holding branches and a cornucopia in its talons.

Fonrobert, No. 9675.

CROSS FOR PAPUDO, 1865. Awarded by Bolivia to the crew of the Chilean ship *Esmeralda*, which overcame the Spanish vessel, *Covadonga* at Papudo, November 26, 1865. For description and illustration see p. 112.

Medina, *Medallas chilenas*, p. 146, No. 55.

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MEDAL FOR ABTAO, 1865. During this year Peru became involved in a war with Spain—Bolivia and Chile went to the assistance of Peru. Fonrobert (9976) describes this silver medal, which is 38 mm. in diameter. On the obverse is the bust of the President, Mariano Melgarejo, facing to the left, and the inscription, *BOLIVIA A LOS VENCED<sup>o</sup> DE ABTAO*. On the reverse are the arms of the country with military trophies, encircled by *EN LA JORNADA DE 7 DE FEBRERO 1866*. A silver cross (pattern) has been seen with the above obverse and a plain reverse. It is a double-pointed, six-armed cross, superimposed on a laurel wreath.

Sculfort, No. 1333; Fonrobert, No. 9976; Padiglione, II, p. 16.

CROSS FOR CALLAO, 1866. This is a red-enamelled gold cross of six double-pointed arms, ball-tipped, superimposed on a laurel wreath, bearing on the obverse the bust of President Melgarejo, facing to the left, encircled by *BOLIVIA A LOS VENCED<sup>o</sup>. DEL\* CALLAO\**. On the reverse are the arms of Bolivia, encircled by *EN LA JORNADA DEL 2 DE MAYO DE 1866*. On the suspension laurel wreath is *VIVE EL PERU*.

Salbach, No. 1015; Fonrobert, No. 9198.

STAR OF MELGAREJO, 1868. This is a five-pointed, ball-tipped star, having in the center obverse medallion, the bust of the President, en-

BOLIVIA

Pl. V



Cross of 1872



Order of Condor

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circled by eleven stars, and in the reverse center is *POTOSI DIEBRE 24 DE 1868*, below which are laurel and palm branches.

**LEGION OF HONOUR.** Founded by President Melgarejo in 1866. The decoration is an eight-pointed, faceted star with a white medallion bearing a gold bust of Bolivar facing right within a red-enamelled circle, and a blue band inscribed *SIMON BOLIVAR LIBERATOR*; outside of this band is another circle, faceted. The ribbon is composed of equal stripes of green, yellow and red.

Lawrence-Archer, p. 307.

**CROSS OF 1872.** This is a nine-pointed star of white enamel, having an eagle with raised wings for the suspension device. Between each of the points of the star are gold rays bearing a small five-pointed, white-enamelled star. On the obverse medallion is a figure of Liberty holding in her right hand the Bolivian flag, while the left hand rests a book upon a pedestal. A dark blue-enamelled encircling band is inscribed, *LA ASAMBLEA NACIONAL DE 1872. HILARION DAZA*. On the reverse medallion of white are branches of laurel and coffee plant, enclosing an upright sword and an open book. This is encircled by a band inscribed, *AFIANZO LAS INSTITUCIONES DE BOLIVIA\**. The ribbon shows the national colours, equal stripes of green, yellow and red.



NATIONAL ORDER OF THE CONDOR OF THE ANDES. This was authorized April 18, 1925, for civil and military merit, and is composed of five classes. The decoration is a blue-enamelled<sup>1</sup> Maltese cross, with ball tips and with pink-enamelled kantuta<sup>2</sup> (or trumpet) flowers between the cross arms. The cross has a flying condor for the suspension device. On the circular obverse medallion is the mountain of Potosi, with a gold sun in a blue field—encircled by a white band inscribed in gold, *LA UNION ES LA FUERZA, MCMXXV*. On the reverse medallion of red are letters of gold, R. B. (Republica Boliviano). The ribbon is light green.

ORDER OF MILITARY MERIT. This was authorized by a decree of January 19, 1927, and appears to have had seven grades:—star of iron; medal of bronze; cross of bronze; cross of silver, enamelled red, and a similar decoration enamelled blue; a plaque of gold; and a collar of honour. No detailed description of the decoration has been obtainable, save that the inscription on the obverse is *AL MERITO* in the centre, encircled by *RE-*

<sup>1</sup> The decree prescribes a cross of white anamel, but the specimen in the collection of the American Numismatic Society is of blue.

<sup>2</sup> *Kantuta* is probably the Quechua Indian name for the Coantutai plant, known among botanists as "*Cantua buxifolia*," a shrub with a trumpet-like red flower, common through the Andean region of Bolivia and Peru. Some authorities call it the "Flora del Inca."

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*PUBLICA DE BOLIVIA EJERCITO NACIONAL.* The reverse is not described in the decree nor is any account of the ribbon included. It is believed the order was never actually established.

## BRAZIL

Brazil was discovered January 26, 1500, by Vincent Yanez Pinzon (1460-1524) a Spanish navigator, who commanded the "Niña" in the first voyage of Columbus in 1492. The same year—April 22, 1500—the Portuguese navigator Pedro Alvarez Cabral, took possession of the land under a dictum of the Pope, who had assigned the territory to Portugal. It was a colony of Portugal until 1807, when Joan VI and Queen Maria I (having established a regency in Lisbon) fled from Portugal with their governmental staff and here established their kingdom during the Napoleonic wars in the Peninsula.

Independence from Portugal was declared September 7, 1822, and an Empire formed by Dom Pedro I. (Antonio-Pedro de Alcantara of Bourbon, 1798-1834). He was compelled to resign in 1831 in favour of his son Pedro II. (1825-1891).<sup>1</sup>

The empire was overthrown by the revolution of November, 1889, and a provisional government formed by Manoel Deodora da Fonseca (1827-1892).

<sup>1</sup> Pedro II married September 4, 1845, Princess Theresa-Christina-Marie de Bourbon, daughter of Francis I, King of the Two Sicilies. Their daughter, Isabella-Christina-Gonzaga, was married at Rio de Janeiro, October 15, 1864, to Louis-Gaston d'Orleans, Count d'Eu, son of the Duc de Nemours, a Marshal in the Brazilian army. Francois d'Orleans, Prince of Joinville, and uncle of the Count d'Eu, married at Rio Janeiro, May 1, 1843, Francoise-Caroline-Gonzaga, daughter of Pedro I, and sister of Pedro II.

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In 1891 the United States of Brazil was formed. Fonseca was elected the first President, but he resigned soon after in favour of Florina Peixoto (1842–1895).

Several of the orders of chivalry which had been established in Portugal for several centuries, were transferred to Brazil, and established there by laws of October 20, 1823 and revised or reorganized by the decree of September 9th, 1843. All Portuguese orders of chivalry were discontinued at the time of the overthrowing of the empire and the establishing of the republic.

D'Amade, pp. 427–429.

THE ORDER OF CHRIST consisted of three classes: Grand Cross, Commanders and Chevaliers. The decoration was a red-enamelled cross with expanded and flattened ends, on which is superimposed a cross of white enamel; the whole being suspended from a radiant star bearing a flaming heart. The ribbon is bright red, edged with light blue.

THE ORDER OF AVIS, consisted of a green-enamelled cross with elongated fleur-de-lys ends, suspended from a radiant star bearing a flaming heart, save the lowest grade which was a plain cross. The ribbon is dark watered-green edged with red.

Brazil. *Decretos do Governo Provisorio*, p. 455–456, illus.; Burke, p. 73; Lawrence-Archer, p. 305–306.

## ORDER OF SAINT JAMES OF THE SWORD.

This decoration, of three classes, was a red-enamelled cross (similar to the Cross of Avis), save that the lower arm was shaped like a two-edged sword. The first class plaque bore a replica of the cross on a radiant star of silver. The second class decoration was surmounted by a star bearing the flaming heart and that for the third class was a plain cross as above described. The ribbon was dark purple edged with light blue.

## ORDER OF THE TOWER AND SWORD.

This fifteenth century Portuguese decoration was likewise taken to Brazil by the royal family when they fled to South America, and it was officially revived in that country on May 13th, 1808. It was discontinued on the establishment of the Republic in 1891. The decoration is a five-pointed white-enamelled star, ball-tipped, superimposed on a green-enamelled wreath, with a gilt tower above. On the white-enamelled centre medallion is a green wreath with a sword, encircled by a blue-enamelled band inscribed *VALOR E LEALDADE*. On the reverse is an open book inscribed *CARTA CONSTITUCIONAL DA MONARQUIA\**, encircled by a blue band inscribed *PELO REI E PELA LEI* (for the King and the law). The ribbon was dark blue.

de Melo, p. 8.

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**ORDER OF THE SOUTHERN CROSS.** This decoration was first instituted on December 1, 1822, by Dom Pedro I. (1778–1834) and given the name of the Constellation of the South, or Southern Cross. Brazil was first called the Land of the Holy Cross because of this constellation. It was discontinued at the time of the revolution of 1889, when the empire was overthrown, but revived on May 22, 1890, by the republican government as a reward of merit. There are four classes, Grand Cross, Commanders, Officers and Chevaliers. The first decoration was a ball-tipped, double-pointed, five-armed cross of white enamel surmounted by an imperial crown and superimposed upon a wreath of tobacco and coffee plant leaves. On the light blue centre medallion is a cross of stars encircled by a dark blue band inscribed *BENE MERENTIUM PRAEMIUM*. The reverse medallion of gilt bears the head of the emperor facing to the left encircled by a dark blue band inscribed *PETRUS I BRASILIAE IMPERATOR*.<sup>D</sup> When the order was revised in 1890, the style of the cross in the centre was changed to five stars, arranged as they appear in the Southern Cross constellation, and the crown was replaced by a five-pointed star on a wreath. On the reverse the centre medallion bears a female head of Liberty encircled by the inscription *ESTADOS UNIDOS DO BRAZIL\**. The ribbon is light blue.

Rosa, *Leyes*, p. 255; Cappelletti, p. 317; Daguin, p. 80.

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PL. I



Order of the Southern Cross

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**ORDER OF PEDRO I.** This was considered the first Order of Brazil during the reign of Dom Pedro I, by whom it was instituted. Authorities differ on the exact date of its inauguration; some say April 16, 1826, while others give 1827 as the year of its foundation. Pedro II gave it new regulations on October 19, 1842, and divided it into three classes; Grand Cross, Commanders and Chevaliers. The decoration is a five-pointed, ball-tipped, white-enamelled star surmounted by an imperial crown, with gold rays in the angles. On the centre medallion of white enamel is a gold phoenix, rising from a crown, and holding (in its claw) an ancient crown. On the breast is a shield bearing the initials *P. I.* (Pedro I.) and the whole is encircled by a blue band inscribed *FUNDADOR DEL IMPERO DAL BRAZIL*. Gritzner gives the inscription as "Fundador do Imperio de Bresil," and described the chevalier's decoration as a phoenix rising from a twelve-pointed crown, holding in its beak a scroll and surmounted by the imperial crown.

The ribbon is dark green edged with white stripes.

Gritzner, p. 43-44, illus.; Elvin, p. (41); Cappelletti, p. 317-318, illus.; Burke, p. 70, pl. XX, nos. 1, 2.

**IMPERIAL ORDER OF THE ROSE.** Founded by Emperor Dom Pedro I. on October 17, 1829 in commemoration of his second marriage—with the Princess Amalie-Augusta-Eugenie-Napoleon of Leuchtenberg and Eichstadt, daughter of Eugene de



BRAZIL

PL. II



Order of Pedro I

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Beauharnais. The order was conferred for civil and military merit and consisted of six classes. The decoration is a six-pointed ball-tipped white-enamelled star, superimposed on a wreath of pink roses with green leaves, and surmounted by an imperial crown. In the obverse gold medallion are the intertwined initials *P. A.* (Pedro and Amelia) encircled by a blue band inscribed *AMOR E FI-*

*DELIDADE*. On the reverse medallion is  $18\frac{2}{8}$  29, (the date of their marriage, second of August, 1829) encircled by a blue band inscribed *PEDRO E AMELIA* and a love knot of gold ribbon. The suspension ribbon is light pink, with a narrow white stripe each side. The decorations of the two lowest grades (smaller in size) do not have the crown above.

By a decree of March 22, 1890, of General Manuel Deodora de Fonseca, Chief of the Provisional Government of the United States of Brazil, all honorary Orders of Chivalry were abolished, except the Order of Avis and the Order of the Southern Cross.

**ORDER OF CHRISTOPHER COLUMBUS.** This decoration for civil and military merit, was founded June 6, 1890, by Manoel Deodoro da Fonseca, head of the provisional government; but it was abolished by Congress on February 25, 1891. There were five classes and the decoration is a

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PL. III



Imperial Order of the Rose

## 74 SOUTH AMERICAN DECORATIONS

double-pointed, ball-tipped, white-enamelled cross (or star) of five arms, with gold rays in the angles and surmounted by a five-pointed star. On the blue medallion are two C's, entwined, encircled by a red band. The ribbon is light blue with narrow red edges and a narrow green stripe in the centre.

Daguin, p. 81; Rosa, *Leyes*, p. 371; Montalbo, *Suppl.* pp. 11, 69.

MEDAL OF MERIT. This was established December 15, 1889, for all classes of civil merit, and was made of gold or silver. The obverse bears the arms of the republic and the word *BRAZIL*. The reverse in each case of award was engraved with the year and circumstances of its bestowal, encircled by a legend, which translated means "Brotherliness and Love." The ribbon, of three equal stripes, is green in the centre and red each side.

Gritzner, p. 50; Montalbo, *Suppl.* p. 69.

MEDAL FOR MONTEVIDEO 1813. By a decree of January 20, 1813, this medal was created by the Prince Regent, Joan VI, for the troops taking part in the pacification of Montevideo. It was to be worn on the coat sleeve, was elliptical in shape, of gilt bronze, uniface, bearing an olive tree for Uruguay and a royal crown, united with a dragon, the insignia of the house of Braganza.

Rosa, *Leyes*, p. 196.



Uruguay  
Cisplatina



Volunteers  
Pernambuco

## 76 SOUTH AMERICAN DECORATIONS

**MEDAL FOR CAYENNE.** This was founded in 1809 for those taking part in the combat at Cayenne, on January 11th of that year, when, in retaliation for the occupation of Portugal by the French troops, an expedition led by Lieutenant Colonel Manuel Marques de Elvas Portugal, was sent from Para, Brazil, to French Guiana. The colony was restored to France by the treaty of Vienna in 1815. On the obverse is a bust of the Prince Regent, Don Joan VI, facing to the left, and his title, *D. JOAN P. G. D. PRINCE REGENT DE PORTUGAL &C. 1809*. On the reverse is *CAYENNE TOMADO A: OS FRANCEZES* encircling a wreath, within which is *14 JAN 1809*.

Schulman, *Cat. June 16, 1924*, No. 16; Trost, p. 107.

**CROSS FOR URUGUAY 1817-1822.** Meili gives this as a silver Maltese cross, ball-tipped, 26 mm. in size, surmounted by an imperial crown and ribbon bar. On the obverse medallion is a laurel wreath crowned, with *URUGUAY* at the base, and a dove of peace. No reverse is described. The ribbon is yellow.

Meili, Nos. 8, 9; Trost, p. 107.

**MEDAL FOR VOLUNTEERS OF 1822-1823.** This was founded by decree of July 25, 1824, for the troops who remained loyal to Pedro I. and supported his cause in Montevideo during those years. After the Portuguese withdrew from the

country, the Banda Oriental became part of Brazil with the name of the Province Cisplatina. The decoration is a silver [or bronze] Maltese cross, 27 mm., resting on a laurel wreath and with gold globules in the angles. On the obverse medallion is a bust of Pedro I., facing to the right, encircled by *UOLUNTARIOS REAIS DE EL REY*. On the reverse in *MONTEVIDEO 1822-1823*. The ribbon is green, edged with yellow.

Schulman, *Cat. June 16, 1924*, No. 23; Rosa, *Leyes*, p. 268; Cavalcanti, p. 21, No. 20.

CROSS FOR CISPLATINA. Established February 13, 1823, by Dom Pedro I (1798-1834) for the army and navy taking part in the first struggle for independence and the establishment of his empire. This caused the incorporation of the Banda Oriental with Brazil as the province of Cisplatina and the occupation of Montevideo. Cisplatina was the official name of Uruguay during the last five years of its union with Brazil, 1823-1828. The decoration is a gold and white-metal enamelled cross, 45 mm. or 30 mm. in size, formed of four diamond-shaped arms with the outer points cut off, each arm edged with laurel branches and the whole surmounted by the forepart of a griffon, the badge of the House of Braganza. On the obverse medallion is a palm tree and mountain, over which is *MONTEVIDEO*; on the left arm of the cross is 1821 and on the right arm is 1822: a

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rosette is on each of the upper and lower arms of the cross. The reverse medallion bears the letters *PETRUS I. B. I. D.* for Petrus Primus Brasiliae Imperator Dedet. The upper arm bears 1817, the left 1818, the right 1819 and the lower 1820. The ribbon is dark green with a yellow stripe 5 mm. wide on each side and on the ribbon is a bar inscribed *MDCCCXXII*.

Rosa, *Leyes*, p. 268; Meili, No. 10; Cavalcanti, p. 22, No. 21; Padiglione, Part III, p. 10; Trost, p. 107.

**CROSS FOR PERNAMBUCO.** Founded October 20, 1824, for the soldiers who aided in suppressing the revolutionary outbreak in Pernambuco. It is a gold, silver or bronze Maltese cross, ball-tipped, 36 mm. surmounted by an imperial crown, above which is the ribbon bar. On the obverse medallion is the bust of the emperor and his title *PETRUS I BRAS IMPERATOR* with 18-24 on the horizontal arms and 17-9 on the vertical arms (17th September, 1824), the date of pacification. On the reverse is *CONSTANCIA*. The ribbon is yellow with a green band, 5 mm. wide, each side. A variation of this cross has on the reverse *CONSTANCIA E BRAVURA*, and is said to have been awarded for over six months service.

Meili, No. 12; Trost, p. 107; Padiglione, Part II, p. 16.

**MEDAL FOR INDEPENDENCE.** In Schulman's catalogue of April 10, 1911, is shown (under



No. 2391) a bronze medal, 20 mm. in diameter, bearing an eight-armed, double-pointed cross, resting on a laurel wreath. In the centre medallion is the bust of the emperor facing to the left with the encircling legend *INDEPENDENCIA \* DO BRAZIL.\**

MEDAL FOR BAHIA 1823. This was authorized July 2, 1825, by Pedro I for the troops taking part in the first attempt at independence and driving the Portuguese forces from the city and province of Bahia. It is an oval gold, silver or copper medal, 26 x 21 mm., with a radiant edge and surmounted by an imperial crown. On the blue-enamelled centre is a sword and oak branch and the letters P.I. surmounted by an imperial crown. Encircling this device is inscription *RESTA VRACAO DA BAHIA 1823*. The reverse is plain and the ribbon has five equal stripes, two of yellow and three of green.

Meili, No. 11; Rosa, *Leyes*, p. 290; Cavalcanti, p. 23, No. 23; Sculfort, No. 1239.

MEDAL FOR PARA REVOLUTION 1837. On the abdication of Dom Pedro I in 1831, when his son Pedro II—then but five years of age—was made emperor, a regency was established, and political discord was rife throughout the empire. In 1837 Para and Rio Grande provinces were in open revolution. The medal for Para is of bronze and silver, 34 mm. with a rim of laurel leaves sur-

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mounted by a knot of ribbon. On the obverse is the youthful head of Pedro II facing to the right, and his title *PETRUS II D. G. C. IMP ET PERP BRAS DEF.* 1837. On the reverse is a crowned shield bearing the arms of Brazil between coffee and tobacco branches, above which is *IN HOC SIGNO VINCES.*

MEDAL FOR RIO DA PRATA AND TONE-  
LERO 1851. In 1851 the Argentine dictator Rosas attempted to annex Paraguay and Uruguay to Buenos Aires, a course to which Brazil strongly objected. The troops of Uruguay and Corrientes, with those of Brazil, together with a Brazilian naval squadron completely routed the forces of the Argentine dictator. The naval medal for this event, authorized March 14, 1852, is of gold or silver, 31 mm. in diameter. It is surmounted by an imperial crown and bears on the obverse the head of the emperor facing left with *D. PEDRO II IMPERADOR DO BRAZIL.* On the reverse, within a laurel wreath is 17-12-1851 (17 December 1851) surrounded by the inscription *CAMPANHA NAVAL DO RIO PRATO EC DO TONELEIRO* \*. The ribbon is light blue.

Meili, No. 115; Rosa, *Monetario*, No. 1051, illus.; Cavalcanti, p. 51, No. 90; Sculfort, No. 1241; Trost, p. 108; Rosa, *Leyes*, p. 337.

MEDAL FOR RIO DA PRATA. This was issued for similar purposes as the above; is a gold



Bahia  
Coimbra



Tonelero  
Matto Grosso

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or silver medal, 31 mm., surmounted by an imperial crown with the obverse as above. On the reverse within a laurel wreath is 1851-1852 surrounded by the legend *CAMPANHA NAVAL DO RIO DA PRATA*. The ribbon is green with a narrow red edge.

Meili, No. 116; Rosa, *Monetario*, No. 1052, illus.; Cavalcanti, p. 51, No. 89; Sculfort, No. 1242.

**MEDAL FOR URUGUAY 1852.** Founded by decree of March 14, 1852, for the troops under General Urquiza taking part in the war with Juan Manuel Rosas (1793-1877) the dictator of Buenos Aires during 1851-1852. It is of gold, silver or bronze, 30 mm. in diameter, and surmounted by an imperial crown. On the obverse is the bust of the emperor facing to the left and his title *D. PEDRO II. IMPERADOR DO BRAZIL*. On the reverse, within a wreath is 1852 encircled by *CAMPANHA DO URUGUAY*. The ribbon is green edged with red. Uruguay and Argentina also awarded decorations to General Urquiza.

Meili, No. 118; Cavalcanti, No. 91; Rosa, *Monetario*, No. 1055.

**MEDAL FOR URUGUAY & BUENOS AIRES 1852.** This was awarded at the same time as the preceding medal for those taking part in the same war. The medal is of same metals as the above, similar in size and obverse, but the reverse has, within a wreath  $18\frac{3}{2}52$  (3rd of February, 1852)

encircled by *CAMPANHA DO URUGUAY E DE BUENOS AIRES*.

Meili, No. 117.

**MEDAL FOR COIMBRA 1864.** In 1864 the dictator of Paraguay, Francisco Solano Lopez (1826-1870) without previous declaration of war, invaded the provinces of Brazil and Argentina and captured a vessel of the former country in the Paraguay river. Uruguay joined the invaded states under an alliance and a five year war ensued known as the War of the Triple Alliance against Paraguay. By a decree of July 8, 1865, this medal was awarded to 120 soldiers under Colonel Porto Carriera who defended for three days the forts of Coimbra (on the Paraguay river, province of Matto Grosso) against 3,000 Paraguayans, and only surrendered when their ammunition was exhausted. The medals were oval, of silver and bronze, 35 x 23 mm., inscribed on the obverse within laurel branches *VALOR E LEALDADE*. On the reverse the inscription is *26, 27, 28 DE DEZEMBRO FORTE DE COIMBRA 1864*. The ribbon has three equal stripes, two of red at the sides and one of black in the centre. A variant of this medal is 25 x 20 mm.

Rosa, *Leyes*, p. 341; Rosa, *Monetario*, No. 1058, illus.; Meili, No. 121; Cavalcanti, p. 52, No. 92; Sculfort, No. 1244.

**MEDAL FOR URUGUAY 1865.** Issued by a decree dated June 28, 1865, for the troops taking

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part in the war with Paraguay, and for the engagements in Uruguay. It is an oval of gold, silver or bronze, 25 x 20 mm., having on the obverse the bust of the emperor Pedro II facing to the left, and on the reverse within a laurel wreath *CAMPANHA DO URUGUAY 1865*. The ribbon is half red and half blue, two inches wide for officers and one inch for troops. A variant in the writer's collection which according to Meili was a trial piece, is a bronze oval 35 x 30 mm. having on the obverse the bust of Pedro II facing to the left, encircled by *2 DE JANEIRO E 20 DE FEVEREIRO \* 1865 \**. On the reverse, within a laurel wreath is *CAMPANHA DO URUGUAY*.

Rosa, *Monetario*, No. 1061, illus.; Meili, No. 120; Cavalcanti, p. 53, No. 93.

**MEDAL FOR URUGUAYANA 1865.** Awarded by a decree of September 20, 1865, to the troops taking part in the battle at this village in the province of Rio Grande do Sul, on the Uruguay river on September 18, 1865, during the Paraguayan war. The medal of gold, silver or bronze, 20 mm. in diameter, has on the obverse, within a wreath of coffee and laurel branches, the word *URUGUAYANA* and on the reverse *18 DE SETEMBRO DE 1865*. The ribbon has three equal stripes—the center, green, and those on either side, light blue.

Rosa, *Leyes*, p. 343; Rosa, *Monetario*, No. 1070, illus.; Sculfort, No. 1246; Cavalcanti, p. 53, No. 95.

BRAZIL

PL. VI



Uruguayana  
Bravery (Paraguay)

Riachuelo  
Bravery

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**NAVAL MEDAL FOR RIACHUELO 1865.** Founded by decree of November 18, 1865, for those taking part in the naval engagement June 11, 1865, at Riachuelo, on the Parana river, when the Paraguayan fleet was almost annihilated. It is of gold, silver or bronze, 26 mm. in diameter, surmounted by an imperial crown, having on the obverse, between tobacco and coffee branches the bust of the emperor facing to the left and *PETRUS II. D. G. CONST IMP ET PERP BRAS DEF* 1865. On the reverse between palm and laurel branches are a crossed cannon and anchor, supporting a shield inscribed *II DE JUNHO DE 1865* and surrounded by the legend *COMBATE NAVAL DO RIACHUELO*. The ribbon is white with a green stripe one quarter inch wide on each side.

*Premios Militares*, II, p. 18; Rosa, *Leyes*, p. 346; Rosa, *Monetario*, No. 1064, illus.; Meili, No. 125; Cavalcanti, p. 54, No. 97; Trost, p. 108.

**MEDAL FOR MATTO GROSSO.** Founded by decrees of August 7, 1867, and June 6, 1868, for the troops taking part in the Paraguayan war in the province of Matto Grosso. It is an oval, 25 x 20 mm., of gold, silver or bronze, having on the obverse the head of Dom Pedro II facing left and on the reverse a laurel wreath, the words *CONSTANCIA E VALOR* above in small type and below *MATTO-GROSSO 1867*. The ribbon is of four equal stripes light blue, green, yellow, and light blue.

Meili, No. 124; Cavalcanti, p. 57, No. 100; Sculfort, No. 1253.



MEDAL OF BRAVERY, PARAGUAY 1867. Awarded by a decree of May 1, 1867, to the Brazilian troops, allied with those of Argentina and Uruguay in the war with Paraguay. It is a silver or bronze oval, 25 x 20 mm., having on the obverse the head of Dom Pedro II to left between two laurel branches and on the reverse, within a laurel wreath *AOS MAIS BRAVOS* surrounded by the legend *CAMPANHA DO PARAGUAY 1867*. The ribbon is red, edged with green stripes one quarter inch wide.

Rosa, *Monetario*, No. 1079, illus.; Meili, No. 126; Cavalcanti, p. 56, No. 99; Sculfort, No. 1255; *Premios Militares*, II, p. 82.

MEDAL OF BRAVERY 1868. By a decree of March 28 and April 5, 1868 this was awarded to the men of the allied army and navy who had distinguished themselves in the Paraguayan war of 1865-1870. It is an oval silver or bronze medal, 32 x 25 mm., having on the obverse centre a trophy of arms and flags encircled by *EXERCITO EM OPERACOES CONTRA O GOVERNO DO PARAGUAY* \*. On the reverse centre is *RECOMPENSA A BRAVURA MILITAR* encircled by *DECRETO DE 28 DE MARCO DE 1868*. The ribbon has three equal stripes, the center of red and the side stripes of dark green. Bars bear the dates of the several engagements.

*Premios Militares*, II, p. 75; Rosa, *Leyes*, p. 349; Sculfort, No. 1256; Meili, No. 128; Cavalcanti, p. 62, No. 105.

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NAVAL MEDAL FOR HUMAITA. Authorized by decree of March 14, 1868, and awarded to the marines of the fleet, who on February 19, 1868, forced the passage of Humaita in southern Paraguay, at the junction of the Uruguay and Paraguay rivers, after a thirteen months siege of the fortress. It is a round silver or bronze medal, 35 mm., surmounted by a bar bearing an imperial crown. The obverse depicts vessels bombarding a fort, above is the legend *A ESQUADRA BRAZILIERA FORÇA O PASSO DE HUMAITA*, and in the exergue is *XIX DE FEVEREIRO DE MDCCC-LXVIII*. On the reverse within a laurel wreath is *AOS DA PASSAGEM DE HUMAITA*. The ribbon is red with a light blue stripe one third of its width at the centre.

Rosa, *Monetario*, No. 1081, illus.; Meili, No. 127; Cavalcanti, p. 60, No. 104; Sculfort, No. 1257.

CROSS FOR PARAGUAY 1868-1870. Authorized by a decree of August 20, 1870, for the troops and marines serving throughout this campaign. It is a double-pointed, gold, silver or bronze cross, 25 mm., with a laurel-wreath medallion in the centre inscribed *CAMPANHO DO PARAGUAY*; on the reverse is  $18\frac{6}{8}70$ . The ribbon has five equal stripes, green, white, light blue (centre) white and yellow. Bars were worn on the ribbon, with a

BRAZIL

PL. VII



Humaita  
State of Para, Service



Cross for Paraguay  
War Cross 1917-18

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medallion centre bearing one of the figures, 1, 2, 3, 4 or 5 to denote the number of years of service.

*Premios Militares*, II, p. 97; Rosa, *Monetario*, No. 1086, illus.; Meili, No. 129; Cavalcanti, p. 63, No. 106; Sculfort, No. 1258.

STATE OF PARA SERVICE MEDALS. No authority has been found for three medals in the collection of The American Numismatic Society; gilt, silver and bronze, 25 mm. in diameter. On the obverse are the arms of the state on a shield within laurel branches, with a condor and sunburst above, and with a ribbon scroll on the right hand side inscribed *SUS / LEGE / PROGREDIA / DO / ESTADO / DO / PARA*. On the reverse is *BRIGADA MILITAR \* DO ESTADO DO PARA*. The ribbon has three equal stripes, red, white, red, with narrow white edges. On the ribbon are bars inscribed *10 ANNOS*, *20 ANNOS*, *30 ANNOS*, denoting the length of service.

WAR CROSS 1917-1918. At the close of the World War, Brazil authorized a decoration for those in the service of the country during the war. It is a bronze cross with four curvilinear arms, having on the upper arm of the cross *VIII* and on the round centre medallion the constellation of the Southern Cross of five stars, encircled by a band inscribed *PELA JUSTICA E PELA CIVILISACAD.* and on the reverse medallion **1917-1918**

encircled by a band inscribed *GRANDE-GUERRA BRASIL*. The ribbon is orange, with a narrow black stripe in the centre and a similar black stripe on each side.

**MEDAL for LONG SERVICE.** This was created by decree of November 15, 1901, for officers and soldiers who have served with merit and loyalty. For thirty years service it is of gold, for twenty years of silver, and bronze for ten years. The medal, in the form of a star, has on the obverse the arms of Brazil between branches of coffee and tobacco plants and on the reverse centre the date of its creation—*15 DE NOVEMBRO DE 1901*. The ribbon has three equal stripes, green, yellow and green, and is edged with yellow.

## CHILE

This section of South America was invaded in 1535 by Diego de Almagro (1475-1538), one of the Spanish conquerors of Peru, and was first settled in 1541 by Pedro de Valdivia (1498-1554). The Spanish were in continuous control for almost three hundred years. Early in 1817, General José de San Martín<sup>1</sup> of La Plata, left Argentina to aid the Chileans in their war for independence. After the battle of Chacabuco, on February 12th of that year, San Martín was pressed into the service of Chile to take supreme command of their army. In 1820 he went to the assistance of Peru, and aided by Lord Cochrane, captured Lima and drove the Spanish from the coast. The independence of Chile was declared February 12, 1818. Chile acquired Atacama from Peru, while Tacna and Arica are still the subject of negotiations with Peru as to ownership under the conditions of the treaty which closed the war of 1879-1883. The word Chile is probably derived from the Quichua Indian word *tchili*, meaning snow.

<sup>1</sup> José de San Martín was born February 25, 1778, at Yapeyú, on the Uruguay River. He was educated in Spain and became a lieutenant-colonel in the army of that country. In 1811 he returned to Buenos Aires and entered the army in the cause of independence. After ably assisting the Chileans and Peruvians in driving the Spaniards from their territories, he returned to Europe in 1822, and lived in seclusion near Paris. He died at Boulogne, August 17, 1850.

SPANISH MEDAL FOR FIDELITY. This is classed under Chile by some writers, although it might apply to any of the Spanish-American colonies, as it appears to have been awarded to the troops who upheld the cause of Spain during the period in which several of the South American countries were struggling for their independence. It was issued in gold or silver, 39 mm. in diameter, bearing on the obverse the laureated bust of the king and his title *FERNANDO VII REY DE ESPANA Y DE LAS YNDIAS*, and on the reverse, within palm and laurel branches *EN PREMIO DE LA FIDELIDAD*. An oval bronze medal, 47 x 41 mm. was also issued, with a uniformed bust of the king facing to the right and with the same inscriptions. This was made in Mexico and designed by F. Gordillo.

Salbach, Nos. 173, 174; Medina, *Medallas Chilenas*, p. 78, Pl. III, No. 5; Essling, No. 2411.

MEDAL FOR CHACABUCO 1817. On February 12, 1817, a patriot force led by an Argentine officer, José de San Martín, and General Bernardo O'Higgins of Chile, having left Mendoza and crossed the Andes Mountains into Chile, met and overwhelmed the royalist forces in a pass of the Andes at Chacabuco. The Spanish forces were led by Marco del Pont and Maroto. The battle was won by a bayonet charge led by O'Higgins himself. This

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engagement drove the Spanish out of Santiago and resulted in the independence of Chile. O'Higgins became Director General, an office which he held until 1823.

By a decree of April 15, 1817, this medal was authorized for all the troops under San Martin and O'Higgins: hence it is also classed with those of Argentina. There were three varieties of the medal: two were pentagonal and made in London; an oval medal was made in Chile. One pentagonal medal of gold or silver, surmounted by a radiant sun with a wide ribbon bar-loop, has on the obverse center the arms of Argentina within laurel branches, below which is the date, *12 DE FEB<sup>o</sup>. DE 1817*. On the reverse, within a laurel wreath is: *LA PATRIA A LOS VENCEDORES DE LOS ANDES*, and around the edge is: *CHILE RESTAURADO POR EL VALOR EN CHACABUCO*. The other pentagonal medal with a ring for the ribbon, has the same obverse without the date, with the encircling motto of the reverse reading: *CHILE RESTAUR<sup>o</sup> P. EL-VALOR EN CHACAB<sup>co</sup>*.

The oval medal, 41 x 34 mm., of gold or silver, made in Chile, has on the obverse, within a small oval, the arms of Argentina, superimposed on mountain peaks and a radiant sun, encircled by two laurel branches. On the reverse center, within laurel branches is: *LA PATRIA A LOS VENCED. DE LOS ANDES*, encircled by: *CHILE RESTAURADO POR EL VALOR EN CHACABUCO*.



CHILE

PL. I



Chacabuco

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In all cases the ribbon is three equal stripes of white, light blue and gold.

*Premios Militares*, I, p. 268; Rosa, *Med. Arg.*, p. 74; Medina, *Medallas Chilenas*, p. 88, Pl. IV, No. 2; Rosa, *Monetario*, p. 72 illus.; Fonrobert, No. 9978.

**CROSS OF THE LEGION OF MERIT.** This was instituted by Bernard O'Higgins, June 1, 1817. It is of three grades, Grand Officials, Officials and Legionnaires, and was awarded to the conquerors of Chacabuco. It was awarded to the Argentine officers also, and by an Argentine decree of December 9, 1817, its acceptance was permitted.

The decoration is a silver star composed of eight groups of rays, with a laurel wreath superimposed. The whole is suspended by a ring from a knot of ribbon (metal). On the obverse medallion is a column monument encircled by a band inscribed *LEGION DE MERITO DE CHILE*, and on the upper segment of the wreath, a ribbon inscribed *L'ENC. EN. CHA.* (Conquerors of Chacabuco).

On the reverse medallion are eight mountain peaks, the central one being a volcano in eruption. The whole is encircled by a band inscribed: *HONOR Y PREMIO AL PATRIOTISMO*. On the ribbon segment above is inscribed: *O'HIG'S. INST.* The ribbon is half white and half red.

Medina states these were made in Santiago and that another medal of gold and silver was made in Paris and awarded to those not at Chacabuco. This was a red-enamelled five-pointed star,

CHILE

PL. II



Legion of Merit

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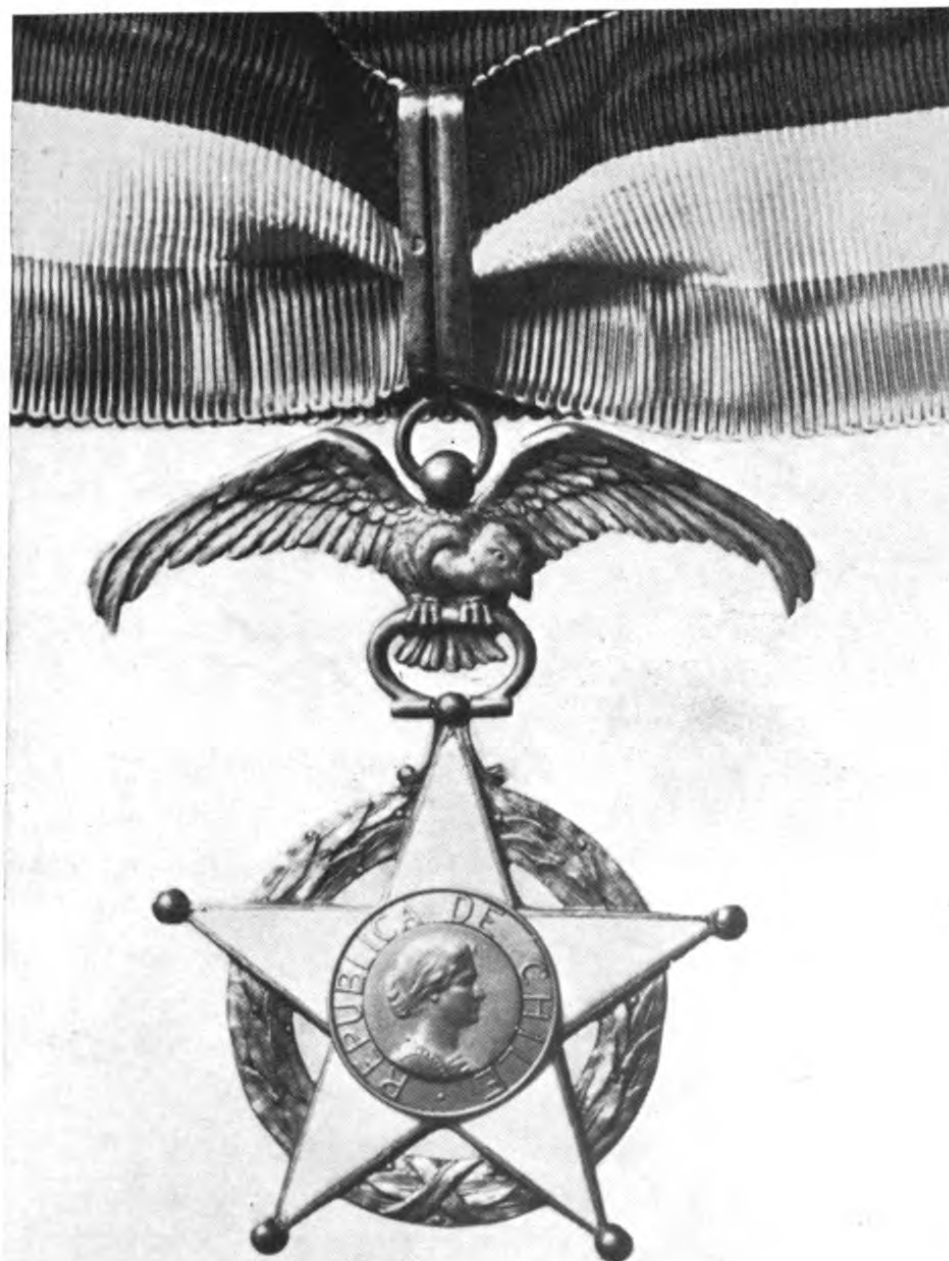
with white-enamelled ball tips and gilt rays in the angles; the whole superimposed on a green laurel wreath. The medallions were the same on both sides, but the inscription on the reverse upper ribbon band reads *OHIG. S. YNST*, and under the obverse band there is an oval bearing in gold letters *H OY*. The ribbon is half white and half red. These were made in two sizes, 44 mm. and 36 mm. For further details, see Medina's account.

*Premios Militares*, III, p. 8; Rosa, *Leyes*, pp. 48, 205–10; Medina, *Medallas Chilenas*, p. 92, Pl. IV, No. 10–12.

**ORDER OF MERIT.** The present Order of Merit was established in 1910. It is a white-enamelled five-pointed gold star, ball-tipped, superimposed on a gold laurel wreath and with a condor with spread wings above. On the obverse medallion of gold is a female head to the right, encircled by a band inscribed *REPUBLICA DE CHILE*. On the reverse medallion is a laurel branch encircled by a band inscribed *AL MERITO*. The ribbon displays the national colours, three equal stripes of blue, red and white. The first class decoration of gold is suspended around the neck and the other classes are worn on the left breast.

Guadagnini, p. 180.

**MEDAL FOR MAYPO**, or Maipo, 1818. At this time the Chilean forces were headed by the Dictator Bernardo O'Higgins, and the final victory



Order of Merit

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over the Spaniards was at the battle of Maipo on April 5, 1818, on the plains by the river of the same name, near Santiago. Five thousand Chilean and Argentine patriots under San Martin, won the victory over 5,500 Spaniards led by General Manuel Osori (1770-1830). Each side lost over 1,000 men. Osori escaped, but 2,200 men and the principal Spanish officers surrendered.

The medal authorized May 10, 1818, is an oval of gold, silver or copper, 30 x 28 mm., having on the obverse a five-pointed star within laurel branches, encircled by *CHILE RECONOCIDO AL VALOR Y CONSTANCIA*, and on the reverse, within laurel branches, is *DE LOS VENCEDORES DE MAIPO AB 5 1818*. A variant of gold has the inscription, *LA PATRIA A LOS VENCEDORES DE MAYPO ABRIL 5 DE 1818*.<sup>\*</sup> A copper star, octagonal (with curved sides) and ball-tipped, 29 mm., was also issued, having on the obverse a five-pointed star within a laurel wreath and encircled by the same inscription as the silver medal. The reverse is plain. The ribbon is bright red. This decoration was also awarded to the Argentine troops.

Medina, *Medallas Chilenas*, p. 111, Pl. IV, No. 3.

<sup>\*</sup> Rosa, *Monetario*, p. 329, illus.; Medina, *Medallas Chilenas*, p. 111, Pl. IV, No. 4; *Premios Militares*, I, p. 292; Rosa, *Leyes*, p. 211.

MEDAL FOR VALDIVIA 1820. Valdivia is a city in the province of the same name, in southern

CHILE

PL. IV



Maypo  
Valdivia

Valdivia  
Liberators of Peru 1820

Chile. The city was founded in 1552, and named for Pedro de Valdivia, a Spanish soldier and the conqueror of this section of the country. It was occupied by the Spaniards until February, 1820, when it was captured by the patriots under Cochrane after a three day fight. The decoration is of gold and of two sizes in silver. The gold form has a six-pointed star with rays in the angles, surrounded by a green-enamelled wreath of laurel, the whole suspended from a ribbon bar in the form of an oval laurel wreath. The star has a white-enamelled rim bearing the inscription *RESTAURADOR DE LA PATRIA*. The field is divided horizontally—above are the remains of a ruined fort, below quills and an ink well on a book at the left and a mailed arm holding a sword upright to the right. The silver form of this medal is of two sizes (45 and 40 mm.) at the greatest width. The inscription and the arms on the star are the same but there is no enamelling of the silver star. It has ball tips, and the rays completely fill the angles between the points. From Medina's illustration it seems possible that the silver medals may have been issued in circular form without having been cut out just as appears to have been the practice in Bolivia, compare page 42.

Another medal concerned with this victory is described by Medina. It was created on April 24th, 1821, and is of silver and 39 mm. in diameter. On the obverse within a laurel wreath is a hexagonal



ball-tipped star. In the centre is a fort with flag flying, and around this is *LA PAT A LOS HERO Y RESTAUR° DE VALD°\**. On the reverse, within a circle, is *EL DIA 2 FEB° DE 1820*. The ribbon is of white, blue and red in equal stripes.

Salbach, No. 697-698; Medina, *Medallas Chilenas*, p. 116, Pl. IV, Nos. 5, 6; Rosa, *Numismatica*, p. 92, illus.

MEDAL FOR LIBERATORS OF PERU, 1820. General San Martin, by a decree of August 15, 1821, awarded this medal to men of the Chilean army and navy who assisted in the liberation of Peru. It is an oval of gold or silver, 30 x 25 mm., with laurel branches on the ribbon ring. On the center, superimposed on flags and trophies with sun above, is a shield inscribed *YO FUI DEL EXTO LIBERTADOR* for the army. For the navy the inscription is *YO FUI DE LA ESQUADRA LIBERTADORA*. Around this is a laurel wreath. A gold variant of this is edged with laurel and has an oval laurel wreath above for ribbon. On the shield is *YO FUI DEL EJER° LIBERTADOR*.

Although Rosa states the reverse is plain, he quotes Medina as possessing two variants shown on Plate IV, Nos. 8 and 9 of *Medallas Chilenas*. The first has on the obverse, in addition to above inscription, *ANO DE 1821*, and the second a reverse with radiant sun and with a broad ribbon bar.

Rosa, *Leyes*, p. 228; *Premios Militares*, III, p. 49; Rosa, *Monetario*, p. 443, illus.; Medina, *Medallas Chilenas*, p. 129, Pl. IV, Nos. 8, 9.

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**MEDAL FOR PUNTA DEL MEDANO.** This was authorized February 28, 1822, for those suppressing an uprising at Punta del Medano on August 31, 1821. It is a gold or silver medal, 35 mm., having on the obverse within a laurel wreath, mountain peaks from the centre of which is a liberty cap on a staff (coat-of-arms of Mendoza). On the reverse, within a laurel wreath is *ANIQUEL LA ANARQUIA AGTO 31 DE 1821*. Medina describes a variant with the inscription *PUNTA DEL MEDANO MENDOZA AGOSTA 1821*, which he declares is not authentic.

*Premios Militares*, III, p. 152; Rosa, *Med. Arg.*, p. 95; Medina, *Medallas Chilenas*, p. 120, No. 37.

**MEDAL FOR CHILOE 1826.** After the resignation of O'Higgins in 1823, there was an uprising of the royalists and Indians of this island province in the South. For the troops taking part in suppressing the insurrection this medal was authorized by a decree of February 18, 1826. On the obverse is, *COLMO SU GLORIA EN CHILOE LA MILITAR DE CHILE*. The reverse is inscribed, *CAMPANA DE 1826*. For the navy the obverse inscription is, *LA MARINA DE CHILE*.

Medina, *Medallas Chilenas*, p. 166.

**MEDAL FOR CALLAO 1826.** This was awarded the Chilean troops who assisted in capturing from the Spaniards, the port of Callao in Peru. It is an

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Punta del Medano

Baron 1837

Callao 1826

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oval gold or silver medal, 30 x 25 mm., edged with a laurel wreath and suspended from a knot of ribbon in metal. In the center is a fort with a flag flying, and in the upper field is, *TOMA DEL CALLAO EN 1826*. A variant of this medal has only a tower and the same inscription.

Medina, *Medallas Chilenas*, p. 131, Pl. IV, No. 7; Salbach, Nos. 405, 984.

STAR FOR ANCACHS 1839. Ancachs is a maritime province of Peru, north of Lima, corresponding to the colonial intendencia of Huaylas. One of the engagements during the three years war to prevent the confederation of Peru and Bolivia, took place at this point, and Chile awarded this decoration to members of her army, by a decree of March 28, 1839.

It is an eight-pointed star of gold (36 mm.), or silver (43 mm.). This star is composed of rays on which there is a green laurel wreath in high relief and within it a red medallion with a white-enamelled star in the center, encircled by a white-enamelled band inscribed, *AL VALOR INVENCIBLE EN ANCACHS*. On the reverse medallion is *20 ENERO DE 1839*. A green laurel wreath forms the ring for the ribbon, which has three equal stripes—red at the sides separated by white.

Medina describes a gold star of seven points, 36 mm. in diameter, having only *ANCACH* on the obverse band, and without the green-enamelled wreath.



Ancachs  
Yungay

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In the Salbach catalogue (No. 692) Schulman describes a gold star of eight points of rays, 18 mm. in diameter, inscribed *EL VALOR EN ANCACH*.

In the writer's collection is a silver star, 43 mm. in diameter, with the obverse inscription, as first described, on a silver band and with a plain round ring for the ribbon.

Medina, *Medallas Chilenas*, p. 143; Salbach, No. 416.

**MEDAL OF MONTEAGUDO.** By a decree of September 6, 1836, this medal was awarded to the men of the frigate "Monteagudo." On the obverse within laurel branches is *FIEL A LA PATRIA EN 1º DE AGOSTO DE 1836*. On the reverse is *A LA LEALTAD MANIFESTADA EN LA FRIGATA MONTEAGUDO*.

Medina, *Medallas Chilenas*, p. 137.

**CROSS FOR BARON 1837.** In 1836 Chile declared a war on Bolivia and Peru, in an effort to prevent the confederation of the two countries. By a decree of June 16, 1837, this decoration of gold or silver was instituted. The illustrations are taken from the silver cross; there are slight differences in details—the points of the star touch the rim on the gold cross, and do not have rays in the angles. It is a five-pointed star, each point terminating in a tiny rosette; the large circular medallion bears a shield on which is another five-

pointed star (the arms of Chile); encircling this is *A LOS FIELES DEFENSORES D LA LEI*. The reverse (silver) medallion bears a five-pointed star with five rays over the right side of each element of the star, encircled by a band with the inscription *ALTURAS DEL BARON JUN. 6 DE 1837*.

Medina, *Medallas Chilenas*, p. 138, Pl. V, No. 2; Salbach, Nos. 418, 419; Rosa, *Leyes*, p. 317.

CROSS FOR YUNGAY, 1839. During the war against the Peruvian-Bolivian confederation, a battle was fought at the gold-mining village of Yungay in the province of Ancachs, Peru. The Chilean troops defeated the Peruvians led by Santa Cruz. By decree of March 25, 1839, this decoration was awarded. It is a white-enamelled gold (or silver) five-pointed star with ball tips, and with rays in the angles, with a green-enamelled wreath for the ribbon bar. On the gilt medallion is a city and mountain with a laurel wreath above; in the exergue is *PAN DE AZVCAR*. An encircling red band bears the inscription *EL GOB° DE CHILE A LOS VENC°. EN YUNGAY*. (The Government of Chile to the conquerors of Yungay). On the reverse is *EL 20 DE ENERO DE 1839*. The ribbon is blue, red and white, the national colours of Chile. The silver star is without the suspension wreath. This cross like the one for Casma, which differs only in the center medallion, is made in two parts. The medallion was struck from dies at the mint and

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to this the enclosing star with its rays, a separate unit, was soldered.

Medina, *Medallas Chilenas*, p. 141, Pl. V, No. 3; Rosa, *Leyes*, p. 326; Sculfort, Nos. 1265, 1266; Salbach, No. 414.

MEDAL FOR YUNGAY, 1839. This is an oval silver medal, 36 x 30 mm., authorized December 21, 1839, bearing on the obverse within two laurel branches a shield surmounted by a radiant five-pointed star and inscribed *YO FUI DEL EJERCITO RESTAURAD'R*. On the reverse, within laurel branches is *VENCEDOR EN YUNGAY EL 20 DE ENERO DE 1839*. The ribbon displays the national colours.

Salbach, No. 700; Medina, *Medallas Chilenas*, p. 141, Pl. V, No. 4; Rosa, *Leyes*, p. 327.

CROSS FOR CASMA, 1839. By decree of March 28, 1839, this was awarded for the naval combat at Casma. It is similar to the Cross for Yungay and bears on the white-enamelled center a naval crown above two laurel branches, around which is a red-enamelled band inscribed *EL GOBº. DE CHILE A LOS VENCº. EN CASMA*. On the reverse medallion is *EL 13 DE ENERO DE 1839*. The similarity of this decoration to that for Yungay has been explained under the entry for that cross.

Medina, *Medallas Chilenas*, p. 140, No. 49; Salbach, No. 417; Rosa, *Leyes*, p. 324.





Casma

Abtao

Papudo

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MEDAL FOR CIVIL WAR, 1851. Awarded by decree of April 23, 1851, to the National Guard of Santiago for service during the civil wars of 1851. It is an oval, gold or silver-gilt medal, 35 x 28 mm., showing on the obverse an open book, a radiant five-pointed star above, and the inscription *DEFENSOR DE LAS LEYES*. On the reverse, within laurel branches, is *20 DE ABRIL DE 1851*. The ribbon is red, blue and white of equal stripes.

Medina, *Medallas Chilenas*, p. 146, No. 54; Salbach, Nos. 411, 412; Rosa, *Leyes*, p. 333.

MEDAL FOR PAPUDO 1865. In 1865, Chile became involved in a war with Spain, owing to her sympathy for Peru, and many Chilean ports were blockaded. This decoration, awarded by Bolivia, is of gold or silver, 38 mm., being a six-armed Maltese cross, ball-tipped, superimposed on a laurel wreath. In the round center medallion is the bust of the Bolivian President Melgarejo to left, encircled by *BOLIVIA A LOS VALI<sup>os</sup> DE LA ESMERALDA*. On the reverse are the arms of Bolivia, encircled by, *PAPUDO NOVIEMBRE 26 DE 1865*. On the wreath above the medal is a band inscribed, *VIVE CHILE*. In Schulman's catalogue of the Eyndhoven Sale (March 17, 1924) he illustrates under No. 2461 a silver medal, 40 mm. in diameter, showing both sides, like those described above, save that they are not cut out to form a cross.

Medina, *Medallas Chilenas*, p. 148, Pl. V, No. 5; Fonrobert, No. 9981.

CROSS FOR ABTAO 1866. Abtao Cove is near Antofagasta, then part of Bolivia. The decoration for this engagement with the Spanish forces, is a gold or silver cross of six double-pointed arms, enamelled white and with gold rays in the angles. On a white medallion is, *ABTAO 7 DE FEBRERO 1866*, and on the reverse is, *LA PATRIA RECONCIDA*. A gold ribbon bar is attached for the red and white ribbon.

Medina, *Medallas Chilenas*, p. 149; Fonrobert, No. 9976; Sculfort, No. 1333; Salbach, No. 686.

MEDAL FOR ABTAO. This is an oval gold or silver medal, 32 x 26 mm. On the obverse is a shield superimposed on the flags of Bolivia, Chile and Peru, and trophies of war. The shield is inscribed, *A LOS VENCEDORES EN ABTAO*. On the reverse is, *7 DE FEBRERO 1866, 57 CANONES CONTRA* 92.

By a law of August 29, 1867, the Congress of Chile authorized the officers to accept "la medalla de honor con que les ha distinguido el Gobierno de Bolivia."

Medina, *Medallas Chilenas*, p. 148, Pl. V, No. 6.

NAVAL MEDAL FOR IQUIQUE. In 1879, the Bolivian authorities seized some property of the Chilean Nitrate Company in Antofagasta, then a part of the Bolivian province of Atacama. This brought about a war in which Peru sided with Bolivia. It was known as the War of the Pacific,

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or the Nitrate War. At its close Chile took possession of all the Bolivian sea-coast (the provinces of Tacna and Arica) and the Peruvian province of Tarapaca.

The first naval engagement took place at Iquique, in Peru, when the Chilean ships, "Esmeralda" and "Covadonga" essayed to blockade that port. The Peruvian vessels, "Huascar" and "Independencia" attempted relief. The "Esmeralda" was sunk by the "Huascar" and the "Independencia" ran ashore while pursuing the "Covadonga." Later the "Huascar" was captured by the "Covadonga" (October 8, 1879) near Puerto Lamar, Antofagasta, and the Peruvian navy ceased to exist.

To reward their seamen, Chile, by a decree of September 12, 1879, authorized this medal of gold or silver, in the form of a shield framed in green-enamelled laurel branches, bearing on the obverse a vessel, the whole being superimposed on an anchor and flanked by flags.

On the reverse is, *IQUIQUE 21 DE MAYO DE 1879*. The ribbon is dark blue, carrying a bar inscribed *COVADONGA*, the name of the ship which destroyed the Peruvian "Huascar"; and *ARICA* for a later engagement.

Medina, *Medallas Chilenas*, p. 150, Pl. IX, No. 5; Sculfort, No. 1264; Salbach, No. 431.

**MEDAL FOR IQUIQUE.** Another medal was issued for this engagement—a circular silver medal



Iquique  
Cross for 1879-1880

Tarapaca  
Lima

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(24 mm.), having on the obverse center two naval vessels in combat—the “Esmeralda” and the “Huascar.” The legend is *EL PUEBLO DE SANTIAGO A LOS HEROES DE IQUIQUE*\*; on the reverse within laurel branches is the date, *21 DE MAYO DE 1879*. This was given by the city of Santiago.<sup>1</sup>

Still another medal of bronze-gilt, 28 mm., was awarded, having on the obverse the two ships in combat, and above on a scroll, *IQUIQUE*, and below, *MAYO 21 DE 1879*. On the reverse is, *HOMENAJE A LOS HEROES*.

Medina, *Medallas Chilenas*, p. 151, Pl. IX, Nos. 2 and 3; Salbach, No. 432.

**MEDAL FOR ANGAMOS.** This was of white metal, 36 mm.; it bears on the obverse the bust of General Manuel Baquedano within laurel branches, encircled by \**AL EJERCITO Y ESCUADRA EL PUEBLO CHILENO*\*. The medal is signed “V. Prinz.” On the reverse, a scene of the naval combat is encircled by the legend \**RECUERDO DE LA CAMPANA 1879-80-1881*\*.

Medina, *Medallas Chilenas*, p. 152, Pl. IX, No. 9.

<sup>1</sup> **MEDAL FOR IQUIQUE.** No authority has been found for the silver medal 33 mm. in diameter, of octagonal form with concave edges, bearing on the obverse the Star of Chile on which is a fireman's (?) casque or helmet. This is encircled by *COMPANIA DE BOMBEROS SARJENTO CLDEA \*IQUIQUE\**. On the reverse, within laurel branches is *JUSTICIA/AL/MERITO*. The ribbon is light blue.

CROSS FOR TARAPACA 1879. Awarded for services in the first land battle near Pisagua, Tarapaca, Peru, which occurred November 27, 1879. The decoration is a gold star of six double-pointed arms with rays in the angles, having on the obverse medallion of gold the word, *TARAPACA*, and on the reverse medallion, *27 DE NOVIEMBRE DE 1879*. The ribbon is red with a white stripe in the center.

CROSS FOR 1879-1880. This was given by decree of September 1, 1880, for services in the various engagements during the War of the Pacific. For officers it is a gold, white-enamelled ball-tipped star of five points with rays in the angles and suspended from a helmet and flags, 40 mm. In the center medallion is the head of Athena, to right, on a red-enamelled field, around which is a blue band inscribed in letters of gold, *CAMPANA A BOLIVIA I EL PERU*. On a red band encircling the reverse blue center is *DE 14 DE FEBRERO DE 1879 A 7 DE JUNIO DE 1880*. The ribbon is red, blue and white. Bars were attached to the ribbon for the several engagements, *Arica, Tacna, Los Angeles, Tarapaca, San Francisco, Pisagua, Chorillos, Angamos, Miraflores, Chipana, Antofagasta, Sorpresa de Iquique, Noviembre-19-1879, Mayo-26-1880, Junio-7-1880*.

The silver cross for junior officers, troops, etc., (not illustrated) is similar to above but without the helmet and flags above and with the arms of the

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cross decorated with scales. The ribbon is red. The same bars were carried on the ribbon.

Medina, *Medallas Chilenas*, p. 152; Rosa, *Monetario*, p. 332; Sculfort, No. 1269; Salbach, Nos. 422-423.

**CROSS FOR CAMPAIGN OF LIMA.** The Lima campaign started in November 1880, under the leadership of General Baquedano; by January 18, 1881, Lima and Callao had surrendered. The cross was created by a law of January 14, 1882. The officer's cross of gold, 44 mm., is white-enamelled, of five arms, double-pointed and ball-tipped, with three green laurel leaves in the angles, 43 mm. On the obverse gold (or silver) medallion is a five-pointed, silver star encircled by a blue band inscribed, *CAMPANA DE LIMA 1881*. The reverse is similar save the inscription, which is *REPUBLICA DE CHILE*. The ribbon is red with a wide white band in the center. The cross for the junior officers is silver gilt. The cross for the soldiers is all silver or bronze with arms decorated with scales; the center of the medallion is gilt and the band is blue, as is also the suspension ribbon. Bars are attached for the several engagements, as follows: *San Francisco* (Nov. 19-1880), *Tarapaca* (Nov. 27-1880) in the Tacna campaign; *Chorillos* (Jan. 13-1881), *Miraflores* (Jan. 15-1881), and *Angamos*, all in the Lima sector.

Salbach, No. 685; Medina, *Medallas Chilenas*, p. 154, Pl. X, No. 2; Rosa, *Monetario*, p. 335, illus.; Sculfort, Nos. 1271, 1272, 1273.



# CHILE

# PL. IX



Valparaiso  
Aconcagua



Huamachuco  
German Instructors

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**MEDAL OF VALPARAISO.** This was given by the city of Valparaiso to its troops serving in the war with Peru and Bolivia in 1879–1881. It is a gold or silver medal, 30 mm., framed in laurel leaves and having a condor with spread wings as the suspension device. Within the wreath is a blue-enamelled band inscribed *VALPARAISO A SUS VALIENTES*, encircling the arms of that city. On a background of rays is an anchor surmounted by a crown formed of ships' sails and on the anchor is a shield bearing a two-funnelled ship and with a star above. On the reverse, within a laurel wreath, are three stars and the inscription, *BATALLON CIVICO*, and below, *DE ARTILLERIA NAVAL*. Encircling this device is *CAMPANA CONTRA EL PERU Y BOLIVIA 1879–1881*.

Variations of this medal for the several contingents are inscribed on the reverse center: *BATALLONO VALPARAISO*, or, *REJIMIENTO VALPARAISO*. The ribbon is half red and half blue and bars were issued for the engagements in which the bearer served, such as *Callao*, *Chorillos*, etc.

Medina, *Medallas Chilenas*, p. 158, Pl. XI, No. 2; Rosa, *Monetario*, pp. 333–334, illus.; Salbach, Nos. 424–425; Sculfort, No. 1268.

**CROSS FOR HUAMACHUCO 1883.** After the fall of Lima in January, 1881, the inhabitants of the country districts refused to surrender and continued to be troublesome. An engagement was fought at Huamachuco in the coastal province of

Liberdad (Peru), for which this decoration was awarded in gold or silver, by a law of December 27, 1883. It is a Maltese cross, enamelled red, each arm terminating in three points. On the obverse is a five-pointed star encircled by a red band inscribed in gold, *HVAMACHVCO \*JVLIO 10 1883\**. On the reverse, at the center, are three mountains in gold. The ribbon has alternating narrow stripes of red and white—eight in all.

Medina, *Medallas Chilenas*, p. 155, Pl. X, No. 3; Rosa, *Monetario*, p. 336, illus.; Rosa, *Leyes*, p. 363; Salbach, No. 420.

MEDAL FOR MIRAFLORES. This was given by the city of Quillota (one of the oldest cities of Chile). It is of white metal, 24 mm., having on the obverse *\*QUILLOTA A SUS HIJOS\**, and on the reverse, within laurel branches, *MIRAFLORES ENERO 15 1881*.

Medina, *Medallas Chilenas*, p. 158, Pl. X, No. 4.

MEDAL FOR BATTALION OF ACONCAGUA. A silver medal, 24 mm., having on the obverse a shield bearing the arms of Chile, surmounted by three plumes and superimposed on two crossed flags around which is *\*AL BATALLON ACONCAGUA 1884\**. On the reverse, within laurel branches is *LOS ACONCAGUINOS RESIDENTES EN SANTIAGO*.

Medina, *Medallas Chilenas*, p. 158, Pl. X, No. 5.

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MEDAL FOR GERMAN INSTRUCTORS  
1897. This is a cross of four curved arms, 32 mm., in diameter, having on the obverse center a five-pointed star within a laurel wreath, and on the cross arms, *REPUBLICA DE CHILE*, a tower, a gun carriage and 1897. On the reverse center, the arms of Chile, and on the arms of the cross, *EL MINISTERIO DE GUERRA A LOS INSTRUCTORES ALEMANES*. A variant in gold of which evidently one only was awarded, bears on the reverse, *EL MINISTERIO DE GUERRA AL INSTRUCTOR V. LINDHOLM*. From the appearance of these pieces one is inclined to believe they were of German make, as they differ so materially from the usual South American medal.

Salbach, Nos. 438–439.

## COLOMBIA

The Spaniards discovered this region in the 15th century and soon thereafter commenced its settlement. Various adventurers assumed control over sections of the country. In 1514 these districts were united into the province of Tierra-Firma. In 1564 the Spanish monarch, Philip II (1556–1598) styled it New Granada, which name was continued until the overthrow of Spanish rule in the early part of the 19th century. Included in this title was the present territory of Colombia, Ecuador and Venezuela. Under the leadership of Simon Bolivar,<sup>1</sup> after declaring their independence in 1819, the three sections were united as the Republic of Colombia. Venezuela withdrew in 1829 and Ecuador in 1830, and soon after the Republic of New Granada was established. Civil wars were frequent among the various departments but these terminated in 1861, when at the Congress of Bogata the United States of Colombia was established. In 1886 the Republic of Colombia was formed. Panama seceded in 1903 and declared itself free and independent.

The history of Colombia is linked up with that of Venezuela and Ecuador, and with the viceroyalty of Peru, so decorations and war medals issued prior to 1831 are seldom to be distinguished. Likewise,

<sup>1</sup> Bolivar was born at Caracas, July 24, 1783, and died at San Pedro, December 17, 1830.

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several of the medals attributed to Peru may also be classed with those of Colombia; but these have been treated under the respective countries and will be found elsewhere.

The Cross for Junin and the Medal for Junin will be found described under those of Peru, although the Congress of Colombia decreed on February 11, 1825, that special honours and insignia be accorded to Bolivar and to Sucre, and awarded similar pieces to those of Peru. At the same time decorations were awarded to the troops from Colombia taking part in the victory at Junin in August, 1824. These are described under Peru.

*Filatel. Argen.*, Aug. 1926, p. 587.

**CROSS FOR CARTAGENA 1814.** This was created April 1, 1816, by the king of Spain for the men of the army and navy who took part in the seige of Cartagena in 1814. It was of gold for the officers and silver for the men, and is a green-enamelled cross with triple-pointed arms, ball-tipped at the centre points. On the obverse medallion is a gold head of the king, encircled by a white band inscribed *A SU REY FERNANDO CONSTANCIA Y FIDELIDAD*, and on the reverse white medallion is *VENCEDORES DE CARTAGENA DE INDIAS*. The ribbon is of three equal stripes—red in the centre and green on the sides. Rosa in his *Numismatica; Independencia de America*, 1904, page 50, gives the obverse

inscription as *PREMIO A LA FIDELIDAD*. This was, no doubt, on a cross made in South America whereas that given on page 83 of Numismatic Notes and Monographs No. 31 was of Spanish production.

Gillingham, *Spanish Orders*, p. 83.

CROSS FOR BOYACA 1819. The Popular Assembly, reunited in Bogota September 9, 1819, authorized this decoration for the Colombian troops who fought against the Spanish royalist forces, led by General Barreiro, August 7, 1819, and gained the independence of the country. General San Martin said that the battle of Boyaca was the Waterloo of the Spanish forces in Colombia, and resulted in the freedom of New Granada and Venezuela from Spanish domination. The gold cross for the officers (silver for troops), was worn with a green ribbon.<sup>1</sup>

MEDAL FOR BOYACA 1819. Alejandro Rosa gives this as an oval silver or bronze medal, 25 x 20 mm., having on the obverse a Maltese cross encircled by a laurel wreath, above which is *BOYACA* with two crossed palm branches below, and a plain reverse.

MEDAL OF BOLIVAR. On the obverse the bust of Bolivar is encircled by the inscription *COLOMBIA A SU LIBERTADOR* and on the

<sup>1</sup> Ramon Azpuria, *Biografias de hombres notables de Hispano-America*. Caracas, 1877. Vol. IV, p. XXII of Appendix.

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reverse *SIMON BOLIVAR ILUSTRE GENERAL SABIO LEGISLADOR CUIDADANO INTEGRO LIBERTADOR Y PADRE DE LA PATRIA*. Still another decoration is given without date of authorization—a decoration of brilliants in the form of a sun, inscribed *EL PROTECTOR DEL PERU AL LIBERTADOR DE COLOMBIA*.<sup>1</sup>

In Glendining's Catalogue, June 9, 1913, No. 759 a gold medal, 35 mm. in diameter, was described and illustrated. It bore on the obverse the uniformed bust of the Liberator facing to the right and *SIMON BOLIVAR*. On the reverse is *CREATOR REPUBLICAE COLOMBIAE 1820*.

MEDAL FOR CUNDINAMARCA 1820. This was authorized by a decree of January 6, 1820, of gold for generals and of silver for junior officers and the troops. It is 25 mm. in diameter bearing on the obverse, within a laurel wreath, the inscription in relief *LIBERTADOR DE CUNDINAMARCA*. The reverse is plain and the ribbon is bright red. Rosa describes a variant of the same size but with engraved inscription and without the wreath.

Rosa, *Numismatica*, pp. 43–45, illus.

MEDAL FOR CARABOBO 1821. This battle occurred on June 24, 1821, and on the following July 20th, this medal was authorized in gold and silver. It is an oval shield to be sewn on the sleeve,

<sup>1</sup> Page XXX, Vol. IV, *Biografías de hombres notables de Hispano-America*. Caracas, 1877, by Ramon Azpuria.



34 x 31 mm., bearing an impressed inscription *VENCEDOR EN CARABOBO AÑO DE 1821*, between a sabre and a laurel branch.

Rosa, *Numismatica*, pp. 45-46 illus.

MEDAL FOR PALACÉ 1811. This was awarded for the first battle for independence in New Granada March 28, 1811, and had on the obverse three crosses and a mountain range, at the base of which is a building with a radiant sun above (said to be the arms of Popayan) and on the reverse are mountains (arms of the City of Cali).

Other medals are mentioned by Rosa, but no description is given.—Cartagena 1821, Maracaibo July 24, 1823, inscribed *AL VALOR DE LA ARMADA DE LA COLOMBIA*, and a variant inscribed *AL VALOR Y CONSTANCIA AÑO DE 1823*.

Rosa, *Numismatica*, p. 50.

MEDAL FOR PICHINCHA 1822. After the battle of Pichincha near Quito, Ecuador, May 24, 1822, this medal was authorized (June 18, 1822) by the Colombian authorities for the Peruvian troops taking part. It was an oval gold or silver medal, 30 x 25 mm. having on the obverse *LIBERTADOR DE QUITO EN PICHINCHA* encircling three mountain peaks. On the reverse *GRATITUD DE COLOMBIA A LA DIVISION DEL PERU* with two laurel branches in the centre. The ribbon is

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the tri-colour of Colombia, red, blue and yellow. Other medals for Pichincha are described under Ecuador and Peru.

*Premios Militares*, III, p. 81; Rosa, *Leyes*, p. 246; *Filatel. Argen.*, Jan. 1924, p. 354.

**MEDAL FOR AYACUCHO 1824.** On December 19, 1824, Marshal Sucre authorized this medal for the Colombian troops taking part in the battle of Ayacucho, in Peru, on December 9, 1824. It is of gold for the officers and of silver for the troops, having on the obverse centre, within a laurel wreath, *COLOMBIA A SUS BRAVOS EN EL PERU*. On the reverse is a sword crossed by a rifle, encircled by *VENCEDOR EN AYACUCHO 9 DE DICIEMBRE AÑO 14*.

*Premios Militares*, III, p. 106; Rosa, *Numismatica*, p. 49.

**MEDAL FOR TARQUI 1829.** This was awarded by General Sucre February 27, 1829, to the Colombian troops who were victorious over the Peruvians and Bolivians at the battle of Tarqui, February 26, 1829. It is of gold or silver and bears on the obverse upper field the inscription *VENGADORES DE COLOMBIA EN TARQUI*, below which are a rifle and lance crossed. No reverse is given and the ribbon is said to be green.

Rosa, *Leyes*, p. 308.

**CENTENNIAL CROSS OF BOYACA 1919.** In honour of the centennial of the battle of Boyaca in

1819 this cross was created August 8, 1919, by Decree No. 1667 and awarded to the officers and men of the army of Colombia. It is a Maltese cross of 50 centimeters diameter, having on the obverse the flag of the republic, enamelled in colours, encircled by a gold band inscribed *CENTENARIO DE BOYACA* and on the reverse 1819-1919. The ribbon is light blue. The cross was of silver for officers and of bronze for the troops. On April 17, 1922, the award was modified and its award to eminent foreigners was permitted. The decoration was altered to three classes, gold, silver and bronze. On the obverse the bust of the liberator (Bolivar) replaced the national flag and the inscription was changed to *COLOMBIA—CENTENNIAL OF BOYACA*. The reverse was also changed and the inscription read *1819—7 DE AGOSTO DE 1919*. A third change was made in 1927 when the third class was discontinued. The first class of gold was to be awarded to ministers, diplomats and generals, both native and foreign. The second class of silver to lesser officials. Later the same year a still further change was to have been made, creating five classes, similar to the Order of the Legion of Honour of France and similar orders, but no confirmation of this has been obtained.

Rosa, *Numismatica*, p. 51; Rosa, *Leyes*, p. 215; *Filatel Argen.*, April 1924, p. 406.

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**MILITARY ORDER OF SAN MATEO.** This was authorized by a decree of the President (No. 349) and consists of three classes.

The decoration is a Maltese cross superimposed on a green enamelled laurel wreath. On the obverse centre medallion of purple is a bust of Ricaurte encircled by a band inscribed *RICAURTE 1814-1914*. On the reverse is *COLOMBIA—ORDEN MILITAR DE SAN MATEO*.

The ribbon is of the national colours.

## ECUADOR

From the time Francois Pizarro (1471-1541) discovered Peru in 1530 and the Spaniards occupied the seacoast, Quito and its adjacent territory remained part of the viceroyalty of Peru. From 1710 until 1722 it was part of the viceroyalty of Santa Fé, but it was restored to Peru in 1723. The people of Ecuador with Bolivar's aid succeeded in securing their independence in 1822, after the battle of Pichincha. In 1819 a confederation had been effected between New Granada (Colombia), Venezuela and Ecuador. This was known as the Republic of Colombia. In 1828 political differences arose with Peru and these resulted in the occupation of Cuenca and Guayaquil by Peruvian troops; but after the Ecuadorian victory at Tarqui in the following year, peace was restored. In 1829 Venezuela withdrew from this triple alliance, and the following year the present Republic of Ecuador was established.

**MEDAL FOR PICHINCHA 1822.** While Ecuador was under the government of Peru and during the wars for independence, a battle was fought, May 24, 1822, on the side of Mount Pichincha near Quito, at an elevation of 10,200 feet. The people of Guayaquil led by Antonio José de Sucre (sent by Bolivar) and reinforced by Argentine, Peruvian and Chilean troops defeated the Spanish

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forces. Two days after this battle the Spanish general, Don Melchor de Aymeric, capitulated and the independence of Ecuador was assured. On May 29, 1822, the municipality of Quito created this decoration, of gold for the officers and of silver for the troops. The medal, 35 mm. in diameter, bears a twelve-armed star the arms of which are interlaced with a laurel wreath. The obverse medallion has in the centre three mountain peaks surmounted by a radiant sun, above which is *LIBERTADOR DE QUITO* and below *ANO DE 1822*. The reverse is inscribed *EL CABILDO DE QUITO*. The medal is surmounted by an oval laurel wreath for the ribbon, which has equal stripes of red, blue, and yellow.

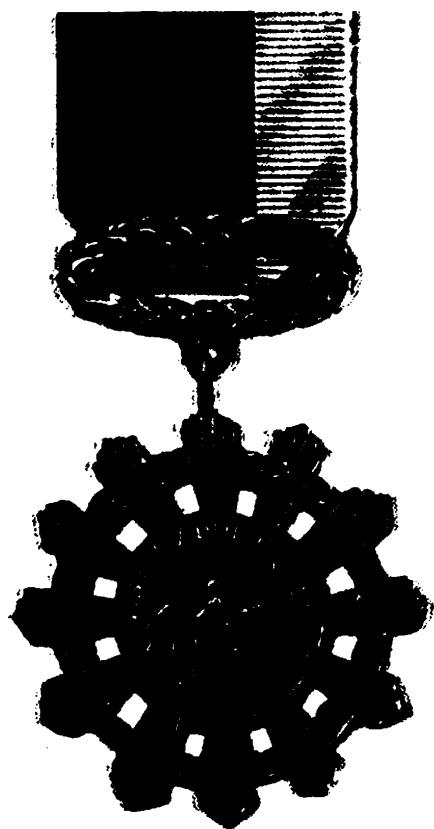
A variant is oval in form, 38 x 42 mm., displaying on the obverse within laurel branches, a shield crowned with a liberty cap, bearing a sun-burst, flags and a horn of plenty and inscribed *A LOS LIBERTADORES DE QUITO*. On the reverse, within a laurel wreath is a shield inscribed *YO FUI DEL EJERCITO LIBERTADOR*.

Other medals for Pichincha are described under Colombia and Peru.

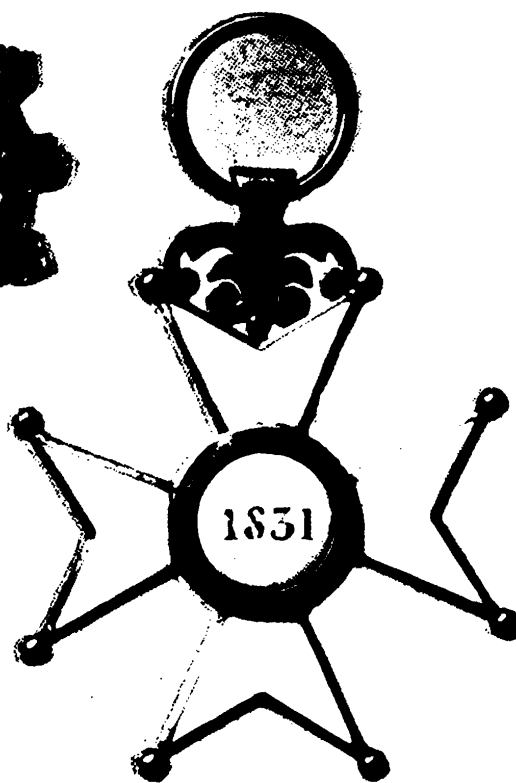
Rosa, *Leyes*, p. 243; *Premios Militares*, III, p. 80; Rosa, *Numismatica*, p. 46, illus., p. 58, illus.; Fonrobert, No. 8332.

Alejandro Rosa in his *Numismatica*, mentions several medals and *escudos* for the following engagements but gives no description.

## ECUADOR



Pichincha



Cross for Independence

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For battle of Calibío January 15, 1814.

For battle of Bombona April 7, 1822.

For Campana de Pasto June 8, 1822.

Rosa, *Numismatica*, p. 51.

**CROSS FOR INDEPENDENCE.** What is believed to be an Ecuadorean decoration is in the writer's cabinet, though no authority has been found describing it. A white-enamelled gold cross, double-pointed and ball-tipped, is surmounted by two green-enamelled scrolls attached to the suspension ring. On the white medallion in figures of gold is 1831, presumably the year of its creation. Encircling this is a blue enamelled band inscribed in gold letters *GUERRA DE INDEPENDENCIA*.\*.

If this is of Ecuador, it was probably created in 1831 to commemorate the final independence of the present republic.

**ORDER OF MERIT.** This is awarded for civil and military acts of distinction, and has three classes. The first is a gold medal with a yellow ribbon; the second of silver with blue ribbon and the third class medal is bronze suspended by a red ribbon.

The decoration is circular in form, composed of twelve rays, interlaced with a laurel wreath and suspended from an oval wreath for the ribbon. On the centre medallion are the arms of the republic in relief (three mountains and a radiant sun) encircled by a band inscribed *REPUBLICA DEL ECUADOR—AL MERITO*.



STAR OF ABDON CALDERON. This was instituted October 22, 1904, in memory of the battle of Pichincha May 24, 1822, and is awarded to citizens only, for military merit (three classes, gold, silver and bronze). The decoration is a five pointed star composed of rays, through which a laurel wreath is interlaced. On the centre medallion is the head of Calderon facing left, in relief, surrounded by *ABDON CALDERON—1822* (1822 being the first year of independence from Spanish control). On the reverse medallion is inscribed *REPUBLICA DEL ECUADOR* and the first four signs of the zodiac. The ribbon has equal stripes of yellow, blue and red, the national colours.

Guadagnini, p. 182; Montalbo, *Suppl.* p. 80.

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### PARAGUAY

This interior republic of South America, first settled by the Spaniards in 1536, was attached to the viceroyalty of La Plata in 1776. The colony declared its independence of Spain in 1811, but refused to join the Argentine Confederation. It was under various dictatorships from 1814 to 1865. The last was that of Francisco Solano Lopez (1826–1870) who brought on the war against Argentina, Brazil and Uruguay, which ended so disastrously for Paraguay. The constitution of the present republic was adopted in 1870.

The six war-medals issued by the government of Paraguay described here were all created by the Dictator Lopez, for engagements in the war against the Triple Alliance. Lopez and his country were completely shut off from the outside world and were compelled to make such medals as were authorized. Some of the decorations were engraved, and one was cast, supposedly in his arsenal, by Charles, whose name appears on one medal as the designer. In consequence, the Paraguayan decorations are seldom pretentious—their rarity is some compensation for their lack of finish.

The writer is indebted to Mr. Charles H. Roberts of Buenos Aires for much of the information of the Paraguayan medals contained herein.

**NATIONAL ORDER OF MERIT.** This was created at Asuncion, April 8, 1865, by Lopez, the

Marshal-President of the Republic and Commander-in-Chief of the Army. It was intended to have several grades with an enamelled decoration, but owing to the isolation of the country this was impossible, and the only known specimens are of chased gold, though some recipients are said to have painted theirs. The decoration is a five-pointed ball-tipped star with crossed cannon in the angles, superimposed on a laurel wreath and surmounted by a similar wreath, tied with a knot of ribbon. On the medallion is a star encircled by *HONOR ET GLORIA* and on the reverse *PREMIUM MERITI*. The ribbon was purple with three narrow stripes of red, white and blue each side. This award was for military merit during the five years' war against the Triple Alliance. The plaque, without the suspension wreath, is about double the size of the cross.

**MEDAL FOR RIACHUELO.** Instituted at the army headquarters of Humaita, July 2, 1865, for those taking part in the engagement against the allied navy at Riachuelo on the Parana River near Corrientes, on June 11-13, 1865. It is a cast medal 30 mm. in diameter, bearing in the obverse center *EL MARISCAL PRESIDENTE*, encircled by *AL 2º REGIMIENTO DE ARTILLERIA A CABALLO*, with two crossed cannon and cannonballs below. The whole is encircled by a laurel wreath. On the reverse, within a laurel wreath is

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*RIACHUELO 11 Y 13 JUNIO 1865.* The ribbon is black with blue edges. The medal was of gold for the superior officers, of silver for junior officers, and of copper for soldiers.

**CROSS FOR CORRALES.** Authorized by Lopez by a decree issued at army headquarters at Paso de la Patria, February 13, 1866, for the troops taking part in the engagement near Corrientes on January 31st. The decorations were engraved sheets of silver for officers and similarly made pieces of copper for soldiers, in the form of a cross with trefoil ends. These crosses were about 58 x 42 mm. in size. On the obverse is engraved *VENCIO EN CORRALES 31 ENERO 1866.* The reverse is plain and the ribbon is blue with a white stripe in the centre, and is attached to a ring affixed to the back of the cross.

**MEDAL FOR TUIUTI, 1867.** Created by decree of November 15, 1867, issued from headquarters at Paso Pacú. At the second battle of Tuiuti on the third of November, 1867, although the forces of Lopez were defeated by the allied armies, this medal was authorized to reward his surviving soldiers. It is of bronze, 35 mm. in diameter, having on the obverse centre military trophies encircled by the inscription *EL MARISCAL LOPEZ A LOS BRAVOS DE TUIUTI,* and on the reverse, within a laurel wreath *3 DE NOVIEMBRE 1867,* below which is *Charles,* the

# PARAGUAY



Tuiuti

Riachuelo

Tataiyba

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name of the engraver. The ribbon is half green and half blue.

Meili, No. 135; Cavalcanti, p. 58, No. 103; Sculfort, No. 1350.

MEDAL FOR TATAIYBA 1867. Created by decree issued at Paso Pacú, October 24, 1867, and awarded to the regiment of cavalry who fought their way through a greatly superior force of Brazilian troops. The medal was gold for the commanding major, silver for the other officers and of copper for the soldiers; 200 survivors in all. It is 30 mm. in diameter, having on the obverse centre a cavalryman with a lance, encircled by the inscription *EL MARISCAL LOPEZ A LOS VALIENTES DE TATAIYBA*. On the reverse, within a laurel wreath is *21 DE OCTUBRE 1867*. The ribbon is half red and half yellow.

Cavalcanti, p. 57, No. 102; Meili, No. 134.

MEDAL FOR ACAIUASA. Authorized July 24, 1868, by a decree issued at San Fernando. It was of gold for the colonel and of silver for the troops, being a double-pointed four-armed cross made of engraved sheets of metal. On the obverse centre is a five-pointed star encircled by *ACAIUASA 18 DE JULIO 1868* and on the reverse, encircling a five-pointed star is *A LA DECISION Y BRAVURA*. The ribbon is of six stripes, alternately blue and red.

Salbach, No. 3015.

## PERU

This part of the Empire of the Incas was conquered by the Spaniards in 1533–34 under Francisco Pizarro (1471–1541); the viceroyalty of Peru was established at Lima in 1535. At the beginning of the eighteenth century this viceroyalty included the Isthmus of Panama and all of South America save the Portuguese colony of Brazil. When the inhabitants of Peru first attempted to throw off the Spanish yoke they were ably assisted by General San Martin of Argentina and by the Chilean forces under Lord Cochrane. The independence of the country was proclaimed in 1821, but it was not until December 9, 1824, that the Spanish Viceroy was finally defeated at the battle of Ayacucho and the republic of Peru definitely established. Peru united with Bolivia in 1836 but was forced by Chile to separate in 1839. It was again at war with Spain in 1865–1866; was attacked by Chile in 1879 and compelled to cede to that country the province of Tarapaca in 1883. The “War of the Pacific”—Chile against Bolivia and Peru, 1879–1883—arose from claims by Chile to the nitrate regions of Atacama in Peru and Bolivia. In February, 1879, Antofagasta was seized; Iquique blockaded April 5, 1879; a naval engagement May 21; the Peruvian ironclad “Huascar” taken by the Chileans off Port Angamos October 8; Pisagua captured November 2; Allies defeated November 19, at

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San Francisco; Peruvian victory at Tarapaca, Chilean victory at Los Angeles March 22, 1880; again victorious at Tacna May 26th; Callao blockaded April 10 and bombarded May 26; Arica taken June 7; Chilean victories of Chorrillos January 13, 1881; at Miraflores January 15th and Lima taken January 17, 1881.

SPANISH MEDAL FOR CALLAO, 1819. Awarded by the Spanish Viceroy for the defenders of Callao in 1819, against the patriots, who under Lord Thomas Cochrane (1775-1860) had sent fire-ships into the harbour of Callao to destroy the Spanish fleet. It is a silver medal, 39 mm. in diameter, made in Lima, depicting on the obverse an exploding ship, and to the right three Spanish vessels. In the foreground two light ships and in the upper field the legend *PREMIO A LA FIDELIDAD Y AL VALOR*. Below *DAVALOS F.* (Fecit) gives us the name of the designer. On the reverse, within an oak wreath is *DEFENSA DEL CALLAO EN MARZO Y OCTUBRE DE 1819*.

Although Alejandro Rosa describes this as a commemorative medal and illustrates it as having no suspension ring, Mr. C. H. Roberts of Buenos Aires, has in his collection a specimen with a suspension ring affixed to the medal for the ribbon.

Fonrobert, No. 9188; Rosa, *Numismatica*, p. 69, illus.

MEDAL FOR GUERILLAS. This was authorized by San Martin October 1, 1822 (Rosa says



PERU

PL. I



Guerillas  
Order of the Sun

Numancia Battalion  
Pasco 1820

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1821) for the guerilla forces in the war for independence. It is an oval of gold for officers and of silver for the troops, 40 x 37 mm., edged with a laurel wreath on the upper half, and inscribed on the obverse *EL VALOR ES MI DIVISA*, and with a radiant sun encircled by *A LAS PATRIDAS DE GUERRILLA* on the reverse. The ribbon is white and red.

*Premios Militares*, III, p. 54, illus.; Rosa, *Numismatica*, p. 56, illus.; Rosa, *Leyes*, p. 231; Rosa, *Monetario*, p. 444, illus.; Fonrobert, No. 8990.

**MEDAL FOR LIBERATORS OF PERU.** Authorized August 15, 1821, by General San Martin, for the Peruvian and Chilean troops taking part in the liberation of Peru from the Spanish domination. It is a gold or silver oval, 30 x 25 mm., with laurel branches on the ribbon ring. A complete description of this will be found under Chile.

*Premios Militares*, III, p. 49; Rosa, *Leyes*, p. 228; Rosa, *Numismatica*, p. 55, illus.; Rosa, *Monetario*, p. 443, illus.

**MEDALS FOR INDEPENDENCE.** Authorized January 11, 1822, by San Martin, for all troops taking part in the war for independence. It is of gold, having on the obverse the arms of Peru, and on the reverse *AL PATRIOTISMO DE LAS MAS SENSIBLES*. Sculfort described another medal of silver, having on the obverse a radiant sun, surrounded by the inscription *LIMA LIBRE JURO SU INDEPENDENCIA EN 28 DE*

*JULIO D 1821.* On the reverse, within laurel branches is *BAJO LA PROTECCION DEL EJERCITO LIBERATADOR DEL PERU MANDADO POR SAN MARTIN.* The ribbon is red edged with green. This is said to have been authorized by San Martin on October 1, 1821.<sup>1</sup>

Rosa, *Leyes*, p. 241; Rosa, *Numismatica*, p. 71; Sculfort, No. 1329; Rosa, *Monetario*, p. 444, illus.

**THE ORDER OF THE SUN.** When General José de San Martín, the Argentine liberator of Chile and Peru, reached Lima, he created this order by a decree dated at the *Palacio Protectoral de Lima*, October 8, 1821, for the purpose of rewarding those who had especially distinguished themselves in that campaign and in order to replace the Spanish Order of Isabella the Catholic. The decoration (uniface) was of gold or silver, 33 mm. in diameter, in the form of a radiant sun, having in the center a circular enamelled band enclosing a circular boss. The upper part of the band is white and is inscribed in red *EL PERU*; the lower part of red is inscribed in white *A SUS LIBERTADORES.* The ribbon is white. This decoration was awarded to those who had rendered distinguished service in the campaign, including Argentine and Chilean officers—in consequence, it is sometimes classed with the decorations of

<sup>1</sup> Ramon Azburia, *Biografías de hombres notables de Hispano-América.* Caracas, 1877. Vol. IV, p. XXIII of Appendix.

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those countries. (The order was discontinued by a decree of March 9, 1825.)

The ORDER OF THE SUN was reestablished by a presidential decree of April 14, 1921, to be awarded to Peruvians as well as foreigners, for both civil and military merit.

While article 7 of the decree states that "The insignia shall be determined," no official information has come to our notice, of its ever having been actually issued; although Guadagnini states the order had five classes and illustrates the plaque and officer's decoration. The latter is in the form of a radiant sun of eighteen gilt rays surmounted by a green-enamelled laurel wreath. On the centre is a medallion within a similar wreath and the inscription. The ribbon is coloured magenta.

*Premios Militares*, III, p. 63; Rosa, *Leyes*, p. 232; Rosa, *Numismatica*, p. 57, illus.; Guadagnini, p. 183.

MEDAL FOR THE NUMANCIA BATTALION. This is attributed to Peru and is said to have been awarded by General San Martin to that batallion of the royalist army commanded by Colonel Thomas Heres, which transferred its allegiance to the cause of independence on December 2, 1820. This gold medal is like the figure S reversed. On the obverse face are a sword and bayonet crossed through a laurel wreath, and on the edge, longitudinally, the inscription *A LA LEALTAD A LOS MAS BRAVOS*. In the reverse field is a radiant sun encircled by *LIMA EJER-*

*CITO LIBERTADOR.* The ribbon is the bi-colour of Peru, half red and half white.

Rosa, *Numismatica*, p. 69; *Premios Militares*, III, p. 33.

MEDAL FOR PASCO, 1820. By bulletin No. 7 of the Liberator San Martin, dated December 6, 1820, this gold (or silver) medal was authorized for the officers (and troops) taking part in the successful engagement at Cerro de Pasco, the capital of the Department of Junin, on the 5th of December, 1820. On the obverse, within a circular field surmounted by a sun, is *A LOS VENCEDORES DE PASCO*, the whole within tied palm and laurel branches, the ends of the branches extending over the lower edge of the medal. On the reverse is *DIC 6 DE 1820* in three lines. The ribbon is half white and half red. Rosa, in *Numismatica* (No. 50), describes the reverse inscription as *DICIEMBRE 6 D 1820* in relief, in the upper field in an arc, and the obverse inscription intaglio.

"*Revista Filatelica*," Buenos Aires, No. 38, July 1930, illustrates a variant in the collection of Senor José Maria Marco du Pont, having on the obverse, the inscription *A LOS / BENCEDO / RES DE / PASCO* and on the reverse *DIC 6 / DE / 1820*.

Rosa, *Leyes*, p. 220; *Premios Militares*, III, p. 35; Rosa, *Numismatica*, p. 52.

MEDAL OF PERU FOR PICHINCHA, 1822. Awarded by a Peruvian decree of July 1, 1822, to the troops taking part in the battle of Mount

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Pichincha, near Quito, Ecuador, on May 24, 1822, in the struggle for independence. (See Ecuador and Colombia.) This is an oval medal of gold or silver, 45 x 38 mm., with a serrate rim. In the oval enclosed by a conventionalized wreath is a round medallion inscribed *A LOS LIBERTADORES DE QUITO*, around which are horns of plenty and battle flags; above there is a radiant sun, and below clasped hands and a liberty cap, emblems of Colombia, Peru and Argentina. In the exergue on a bar is a band inscribed *RENA. SOL. PERU* (*Renace el sol del Peru*). The reverse is plain.

A variation of this medal in gold (uniface), measuring 42 x 30 mm., was illustrated in the catalogue of the Salbach Sale of February 20, 1911. It was edged with a laurel wreath and with a similar wreath for suspension. The center design and inscription were as above, but the word *PERU* is above the sun, and at the base on a ribbon scroll is *EN PICHINCHA*.

The American Numismatic Society has a smaller variety in silver, measuring 30 x 25, with an obverse similar to above, and on the reverse, within a laurel cable border, is a radiant sun encircled by *LA PATRIA AGRADECIDA*. A plain ring is used for suspension.

*Premios Militares*, III, p. 83; Rosa, *Numismatica*, p. 58, illus.; Rosa, *Leyes*, p. 249.

Rosa in his *Numismatica*, 1904—pages 72–76 illustrates and describes five decorations awarded



Pichincha

Ayacucho

Zepita

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by the Spanish authorities to General Geronimo Valdes for his services in the cause of Spain in the Peruvian wars for independence. They are as follows:

**CROSS FOR ICA.** A double-pointed, five-armed gold cross enamelled red and surmounted by a laurel wreath for the ribbon. On a white oval medallion on the obverse is *BATALLA DE YCA* and on the reverse is *ANO DE 1822*. The ribbon is the Spanish red and yellow.

**CROSS FOR TORATA.** This is a four-armed cross with narrow gold arms terminating in balls, superimposed on a laurel wreath. On the white diamond centre is *TORATA* with *ANO DE 1823* on the reverse. The ribbon is half white and half green.

**CROSS FOR MONQUEGUA.** A cross with four diamond-shaped arms, ball-tipped and enamelled green, with gold leaves in the angles. On the oval obverse medallion is *MONQUEGUA* and on the reverse is *ANO DE 1823*.

**CROSS FOR SOUTHERN PERU.** This is a cross of four diamond-shaped arms of gold, with narrow silver arms tipped with red balls in the angles. On the obverse oval medallion is inscribed *CAMPANA DEL SUD DEL PERU EN SETIEMBRE & OCTUBRE DE 1823*. The ribbon is white.

**CROSS FOR AREQUIPA.** This is a gold cross of four arms placed diagonally, with flowers of silver in the angles. On the oval obverse medallion is *AREQUIPA 8 DE OCTUBRE DE 1823*.



These medals are not given in any of the Spanish publications obtainable, and are of course the only ones of the kind, especially made for General Valdes.

MEDAL FOR ZEPITA 1823. This was authorized August 28, 1823, by Andrea de Santa Cruz for the Peruvian and Ecuadorian troops taking part in the struggle with the Spaniards, on August 25, 1823. The medal is an irregular pentagon of gold or silver, 30 x 25, mm. having on the obverse *EN LA CUNA DE LOS TIRANOS LABRE SU SEPULCRO*, with a wreath of flowers below. On the reverse is *ZEPITA AGOSTO 25 DE 1823* within a laurel wreath. The ribbon is half red and half white.

A variant of this medal given to the Ecuadorian hussars is inscribed *AL VALOR DE LOS HUSARES DE ZEPITA* and on the reverse *ZEPITA 25 DE AGOSTO DE 1823*.

Rosa, *Numismatica*, p. 60, illus.; Rosa, *Leyes*, p. 272; *Premios Militares*, III, p. 96; Fonrobert, No. 9265; Salbach, No. 983.

CROSS FOR JUNIN. On August 6, 1824, a spirited cavalry battle was fought at Junin, near the shores of Lake Chinchay-Cocha, between Bolivar's and Sucre's Peruvian-Colombian troops and the Spanish forces led by a French adventurer in the service of Spain, General José Canterac. This action, decided entirely by the cavalry, was most desperate, although it lasted but forty-five minutes.

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It was a complete success for Bolivar's army. The Congress of Peru, by a decree of March 29, 1828, awarded this cross to officers. It is a gold, red and white-enamelled double-pointed ball-tipped cross of five arms, surmounted by a laurel wreath and resting on a similar wreath. On the obverse medallion is *BATALLA DE JUNIN* and on the reverse, two crossed swords united by two flags. Variations of the cross were inscribed on the obverse simply *JUNIN*. In the catalogue of the Salbach Sale (Feb. 20, 1911) are described two crosses, one 33 mm., the other 18 mm., similar to the above, save for the inscriptions which were *JUNIN* on each side.

Rosa, *Numismatica*, p. 71; Salbach, Nos. 981, 982; *Filatel. Argen.*, Aug. 1926, No. 35, p. 587; Rosa, *Leyes*, p. 305.

MEDAL FOR AYACUCHO, 1824. Although the independence of Peru was declared in 1821, the Spanish retained control of some sections in the interior of the country for a considerable time. Simon Bolivar had come from Colombia to aid the Peruvians who were commanded by General José de Lamar. The Spanish forces consisted of 9000 troops under the Viceroy La Serna, while the patriots had but 5780 men under General Sucre. The final battle in this campaign was fought at Ayacucho (Ayacucho was formerly called Huamanga or Guamango) on December 9, 1824, and lasted about one hour. The Viceroy and all his officers



Ayacucho Cross  
Callao 1826

Callao 1826  
Abtao 1866

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were captured and Spanish power in South America was at an end. The medals for this victory were issued in gold and silver; some were oval, 32 x 29 mm., others were round, 30 mm. in diameter. On the obverse they bear the uniformed bust of Bolivar facing to the right and *A SU LIBERTADOR SIMON BOLIVAR*. On the reverse were the arms of Peru<sup>1</sup> superimposed on battle flags and with a laurel wreath above and palm branches below, surrounded by the inscription *EL PERU RESTAURADO EN AYACUCHO AÑO DE 1824*. The ribbon is red and white.

Rosa, *Leyes*, p. 297; Rosa, *Numismatica*, p. 63, illus.; *Premios Militares*, III, p. 116; Sculfort, No. 1330; Medina, *Medallas Chilenas*, pp. 135-136; Rosa, *Monetario*, p. 446, illus.

In the writer's collection, the round silver medal has under the bust of Bolivar the name of the engraver, *A. DAVALOS G.*, and one of the oval medals, 33 x 28 mm., has under the bust the engraver's initials, *M<sup>L</sup>. V<sup>o</sup>. G<sup>o</sup>*.

A variant was issued in gold and silver, 27 x 22 mm., having on the obverse two branches of laurel, crossed, and the word *AYACUCHO* above, with a plain reverse. Schulman illustrates in his catalogue of February 9, 1926 (No. 731) this variant surmounted by two laurel branches.

*Premios Militares*, III, p. 114; Rosa, *Numismatica*, p. 62, illus.; Rosa, *Leyes*, pp. 278-284; Salbach, No. 1003.

<sup>1</sup> The arms of Peru are, upper left, a llama; upper right, a palm tree, and in the lower half, a horn of plenty.

CROSS FOR AYACUCHO. Alejandro Rosa, in *Numismatica* (p. 65) describes this decoration for Ayacucho—a white-enamelled cross of five double-pointed, ball-tipped arms, superimposed on a green laurel wreath, with a similar wreath above for the ribbon bar. On the obverse medallion of gold is the laureated bust of General Bolivar facing to the left, encircled by a blue band inscribed *SIMON BOLIVAR*; this in turn is encircled by eighteen brilliants. On the reverse medallion is *REPUBLICA DEL PERU*. The Salbach catalogue, February 20, 1911 (Nos. 1001 and 1002) describes a four-armed cross of gold, enamelled blue, and with gold rays in the angles. On the medallion is *AYACUCHO*. A bar on the ribbon is composed of a wreath of leaves. A smaller cross, 31 mm., was issued.

Rosa, *Numismatica*, p. 65, illus.; *Premios Militares*, III, p. 243; Salbach, Nos. 1001, 1002.

MEDAL FOR CALLAO, 1826. The fortress of Callao was important in all the Peruvian wars, and in 1826 the troops of Chile and Venezuela assisted those of Peru against Spain. The struggle at Callao was the last attempt of the Spanish forces to hold their former colony in South America. It was captured, after a seige, on January 19, 1826; and on February 1st this medal was authorized. It is a uniface oval of gold or silver, 30 x 25 mm., edged with laurel branches and surmounted by palm and laurel branches for the ribbon bar. On the obverse

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centre is the Peruvian flag flying from a staff on top of a fort; in the upper field is *TOMA DEL CALLAO EN 1826*. The ribbon is red and white. A variant of this was also issued, of silver, 46 mm. x 35, having in the centre a fort with soldiers mounting a ladder and encircled by *RENDIDO EL CALLAO AL VALOR SIN EJEMPLO*.<sup>1</sup> On the reverse is *TOMA DEL CALLAO* and below *ANO DE 1826*. Still another variant, a uniface oval medal, 33 x 27 mm., having in an oval a smaller fort and *TOMA DEL CALLAO EN 1826*, is described in the Fonrobert Catalogue—No. 9189. A similar medal is given in Salbach catalogue No. 984. Another variety brought to my attention is a uniface oval silver medal, 30 x 25, with milled edge, having a fort with flying flag within laurel and palm branches, above which is *TOMA DEL CALLAO* and in the exergue *ANO DE 1826*.

Rosa, *Numismatica*, p. 67, illus.; *Premios Militares*, III, p. 122; Rosa, *Monetario*, p. 447, illus.; Rosa, *Leyes*, p. 301; Salbach, Nos. 984 and 985; Fonrobert, Nos. 9189, 9190.

CROSS FOR MATUCANAS, 1828. A short war with Colombia was brought on in 1828 by President General José de Lamar, who had commanded the troops at Ayacucho. The decoration is a gold cross of six arms enamelled in red and

<sup>1</sup> The American Numismatic Society have an open work medal with the castle of Callao in centre, encircled by a laurel wreath. On base of castle is *RENDIDO EL CALLAO AL VALOR SIN EJEMPLO* and on the reverse is *EN 19 DE ENERO DE 1836*. This may be an error of ten years in the date year.

white for Peru, and in blue, white and red for Bolivia, with green laurel branches in the angles. On the obverse centre is *EL PERU AL TRIUMFO HEROICO EN MATUCANAS*. On the reverse is *18 DE SEPTIEMBRE DE 1828*.

Salbach, No. 1013.

CROSS FOR YANACOCHA, 1835. (See Bolivia also.) During this year Santa Cruz came from Bolivia to the assistance of one of the political parties struggling for control of Peru and fought against Gamarra, one of the political contestants. The following year Chile interfered, siding with Gamarra, and three years of fighting ensued. Santa Cruz was defeated at Jungay in June, 1839 (see Chilean medal for Jungay). The battle of Yanacocha was fought on August 13, 1835, and several decorations were issued.

A five-pointed blue-enamelled star, 51 mm., bears on a shield the arms of Peru and Bolivia and the inscription *VENCI EN YANACOCHA \** and on the reverse *AUCILIANDO AL PERU*. One style has rays in the angles and both the above mottoes on the obverse, with a plain reverse.

A variation, 39 mm., has on the obverse the arms of Peru and Bolivia within palm and laurel branches encircled by *VENCEDOR EN \* YANACOCHA \**.

A silver medal, said to have been awarded the Argentine troops assisting in this campaign, is described under Bolivia.

Salbach, Nos. 1005 and 1006; Fonrobert, Nos. 9260–9262.

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**MEDAL FOR SOCABAYA.** On February 7, 1836, an engagement took place at Socabaya, in the province of Arequipa, between the Peruvian troops under General Felipe Santiago Salaverry, military chief of Peru, and the invading Bolivian forces led by Andrea Santa Cruz. These medals, of which there are at least two, are believed to belong to Bolivia, and will be found under that country, although several catalogues of foreign sales class them under Peru.

Another variety, 37 mm., is uniface and has on the obverse a radiant sun, *HONOR Y PATRIA*, between palm and laurel branches, above which is a condor.

Still another uniface medal has obverse as above and a reverse inscribed *EN SOCABAYA A 7 DE FEBRERO DE 1836*, within palm and laurel branches.

*Filatel. Argen.*, Aug. 1926, p. 586; Fonrobert, Nos. 9252, 9253, 9254, 9255; Bergsöe, No. 1737.

**SPANISH MEDAL FOR CALLAO, 1866.** This bronze medal, 30 mm. in diameter, was designed by G. Sellan and made in Spain. On the obverse is the bust of Queen Isabella II facing to the right, and on the reverse is a shield superimposed upon an anchor. On the shield is *CALLAO 2 DE MAYO 1866*. The ribbon is yellow.

**CROSS FOR ABTAO, 1866.** In 1865, Peru was involved in a war with Spain. Many of the ports



of Chile and Peru were blockaded. Abtao Cove, near Antofagasta, then part of Bolivia, was the scene of one of the engagements. This decoration is a white-enamelled gold star of six points with rays in the angles; in the centre is *ABTAO 7 FEB 1866*. On the reverse is *LA PATRIA RECONCIDA*. The ribbon is red with a small white stripe in the centre.

Sculfort, No. 1333; Padiglione, p. 71; Salbach, No. 686.

MEDAL FOR ABTAO, 1866. An oval silver medal, 32 x 26 mm. On the obverse is a shield inscribed *A LOS VENCEDORES EN ABTAO*, superimposed on trophies of war and crossed flags and surmounted by a sun. On the reverse is *7 DE FEBRERO 1866—57 CANONES CONTRA 92*.

Padiglione, p. 16.

CROSS FOR CALLAO, 1866. During the war with Spain in 1866, when Bolivia and Chile came to the assistance of Peru, this cross was created to reward those taking part in the campaign. It is a gold or silver cross of six white-enamelled arms with rays in the angles. On the obverse centre medallion of white is inscribed *FUE UNO DE MIS DEFENSORES*, and on the reverse is *CALLAO 2 DE MAYO DE 1866*.

A variation of this decoration (which the Salbach catalogue states was given to the gunners) is a

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five-pointed star with ball tips, enamelled red, and surmounted by a green-enamelled wreath of laurel for ribbon. On the white centre medallion is a fortress encircled by a band inscribed in gold letters *CALLAO 2 DE MAYO DE 1866*. On the reverse is *50 CANONES CONTRA 500*.

Schulman describes in the Salbach catalogue of February, 1911 (No. 986) a gold cross of seven arms, each with four points, enamelled red, surmounted by a green-enamelled wreath for suspension ribbon. On the centre medallion of red and white is *EL CONGRESO A LOS RESTAURADORES DE SU PATRIA*.

Rosa, *Monetario*, pp. 453, 454, illus.; Salbach, No. 986.

**LEGION OF MERIT.** This was founded by a decree of May 26, 1880, for civil and military merit, and is composed of three classes. For the military Legion of Merit, the first class was awarded for exceptional services on land or sea; the second class for individual distinguished services, and the third class for distinguished services collectively. The civil decoration was awarded for the sciences, arts, industry and charitable work, and the class varied accordingly.

The first class military decoration is a Greek cross of steel on a green-enamelled wreath, bearing on the obverse the inscription *LA REPUBLICA AL MERITO MILITAR*, and on the reverse the place and date for the award. The ribbon is red.

The second class decoration is similar, but the wreath is of gold and the third class has a steel wreath and a narrower red ribbon.

The decoration for civil merit is suspended from a light blue ribbon and the decoration is of silver with the inscription *LA REPUBLICA AL MERITO CIVIL*.

Rosa, *Leyes*, p. 353.

## URUGUAY

The early history of Uruguay is necessarily associated with that of the viceroyalty of Peru, under which authority it was until 1776, when it became attached to the viceroyalty of La Plata. The first European settlers in this country were the Spanish Jesuits, who arrived in the 17th century. The designation *Estado Cisplatino* was used from 1823, while it was a part of Brazil. A separation took place in 1825, and Uruguay was recognized as an independent republic in 1828. The country was coveted by its neighbors, and as there were not a few Europeans in Montevideo—political exiles many of them—there was no lack of *leaders* in attempts to control the government. Montevideo, (from 1843 to 1852), was besieged by General Manuel Oribe (1802–1857) who had allied himself with the dictator of Buenos Aires, Jean Manuel De Rosas (1793–1877). The city was defended by General Paz, who was also assisted by Giuseppe Garibaldi, the great Italian patriot, who had gone to South America about the middle of the century. Garibaldi led his “Legion” in the battle of San Antonio, near Salta, in northern Uruguay, in February, 1846, for which, by decree of February 25, 1846, their standard was inscribed in letters of gold, “*Hazana del 8 de Febrero de 1846 realizada por la Legion Italiana a las ordens de Garibaldi.*”

Rosa, *Leyes*, p. 330.

MEDAL FOR MONTEVIDEO 1842-1845. This was authorized in May, 1845, by the General Assembly of Uruguay, for the troops who defended the city of Montevideo during the siege of those years. The medals are oval—gold, silver and white metal—and bear on the obverse, between laurel branches: *SITIO DE MONTEVIDEO* encircled by *GLORIA A LA CONSTANCIA Y AL VALOR*. On the reverse center, the years 1842, 1843, 1844 or 1845 (according to the service), encircled by *LA PATRIA RECONCIDA A SUS DEFENSORES*. The ribbon is dark red.

Rosa, *Leyes*, p. 328.

MEDAL FOR MONTE-CASEROS 1852. Monte-Caseros is a village in the province of Buenos Aires, Argentina, where on February 3, 1852, the forces of Justo José de Urquiza (1800-1871) and his Brazilian allies defeated the forces of the dictator Rosas, forcing him to flee from the country. The medal was authorized February 13, 1852, by President Suarez, and is a gold, silver or white metal oval, 39 x 29 mm., having on the obverse center: *AL VENCEDOR EN MONTE CASEROS*, surrounded by *EL GOBIERNO DE LA REPUBLICA ORIENTAL DEL URUGUAY*, and on the reverse, *3 DE FEBRERO DE 1852*. The ribbon is light blue.

*Premios Militares*, II, p. 232; Rosa, *Leyes*, p. 335; Rosa, *Monetario*, p. 474, illus.

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MEDAL FOR YATAY 1865. By a decree of September 30, 1865, this was awarded to the Uruguayan troops serving with the allied forces of Argentina and Brazil, in the five years war with Paraguay. It is an oval gold, silver or bronze medal, 34 x 28 mm., having on the obverse an oval shield bearing the arms of Uruguay on a trophy of flags with a sunburst above. Around this is: \*\*\* *VENCEDORES* \*\*\* *DEL YATAY*, and on the reverse, within laurel branches is, \* *17 DE AGOSTO DE 1865* \*. The ribbon is blue and white, the national colours, five narrow strips of blue and six of white. The quarterings of the arms of Uruguay are: upper left, a pair of scales, upper right, a tower with flag flying; lower left, a prancing horse, and lower right, a bull.

Rosa, *Leyes*, p. 345; Rosa, *Monetario*, p. 475; Sculfort, No. 1350.

MEDAL FOR PARAGUAY 1865-1869. By a decree of April 4, 1891, this was authorized for the soldiers of the allied armies of Argentina, Brazil and Uruguay, taking part in the war with Paraguay. It is a bronze cross with four pointed arms resting on a laurel wreath and surmounted by a radiant sun. On the circular medallion are the arms of Uruguay in an oval, closed by laurel branches, and around the whole is: *CAMPANA DEL PARAGUAY \* 1865-1869* \*. On the reverse center is: *A LAS VIRTUDES MILITARES*

## URUGUAY



Yatay

Paraguay

Paysandu

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encircled by *REPUBLICA ORIENTAL DEL URUGUAY*. The superior officer's cross was surmounted by a gold sun; on that for the juniors the sun was of silver; and for the troops it was copper. The ribbon is red.

*Premios Militares*, II, p. 101; Rosa, *Leyes*, p. 373; Salbach, No. 3048.

MEDAL FOR PAYSANDU, or National defence. During the war with Paraguay, the Brazilian troops captured Paysandu, (Uruguay) after a fierce bombardment, on January 2, 1865.

This medal of silver is 30 mm. in diameter, bearing on the obverse center the arms of Uruguay encircled by the inscription, *DEFENSA NACIONAL, 1864, PAYSANDU 1865*. On the reverse is the bust of General Gomez facing to the left encircled by *GENERAL LEANDRO GOMEZ GEFE DE LA PEAZA*.



## VENEZUELA

This portion of South America was discovered by Columbus in 1498; was conquered by the Spaniards during the sixteenth century and settled by the Spanish commercial house of the Welsers, under a grant of Charles V. It was included in the captain-generalcy of Caracas until 1810, when the revolutionary spirit developed and the region finally became independent in 1821. Venezuela was originally part of the republic of Colombia. In 1831 it withdrew and the United States of Venezuela was established.

The name Venezuela, meaning little Venice, was first bestowed by Alonzo de Ojeda in 1499 on an Indian village on the gulf of Maracaibo.

**MILITARY ORDER OF THE LIBERATOR.** This was created at Caracas, October 22, 1813, by General Simon Bolivar, as a reward to those who had distinguished themselves in the cause of independence of the country. The insignia is a star of seven rays, symbolical of the seven provinces which composed the country at that time. On the obverse is inscribed *LIBERTADOR DE BENEZUELA* and on the reverse *SIMON BOLIVAR*.

Rosa, *Leyes*, p. 200; Rosa, *Numismatica*, p. 42.

**ORDER OF THE BUST OF BOLIVAR OR BUST OF THE LIBERATOR.** This decoration

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instituted in honour of the hero-founder of the five South American republics of Venezuela, Colombia, Bolivia, Ecuador and Peru, was created by the Congress of Peru, February 11, 1825. It was adopted in Venezuela by legislative decree of March 11, 1854; modified by President Guzman Blanco September 14, 1880; confirmed by decree of May 3, 1881, and new statutes were created for the order June 19, 1912. The decoration is awarded by the President, to citizens and foreigners, for civil or military services.<sup>1</sup> There are five classes and the insignia is an oval of twenty-eight rays, having in the centre the bust of Bolivar encircled by a blue band inscribed *SIMON BOLIVAR*. On the reverse are the arms of Venezuela. In the lower half, a running horse; at the upper left a sheaf of wheat, and in the upper right crossed flags and swords supporting a staff on which is a Phrygian cap. Above this are two horns of plenty and below, on a scroll, is *19 ABRIL 1810, LIBERTAD 5 DE JULIO 1811*. The ribbon displays the national colours, three equal stripes of red, light blue and orange.

The Order of the Bust of Bolivar is frequently called the Order of the Liberator in error. The former was founded by the Congress of Peru in 1825, while the latter was created by Bolivar at Caracas in 1813.

Rosa, *Numismatica*, p. 65; Trost, p. 86-87, Pl. XXVII, no. 6, Pl. XXXVIII, nos. 18, 19.

<sup>1</sup> From *Condecoration del Busto del Libertador*. Edicion official, Caracas. Imprenta Nacional, 1912.



Order of the Bust of Bolivar

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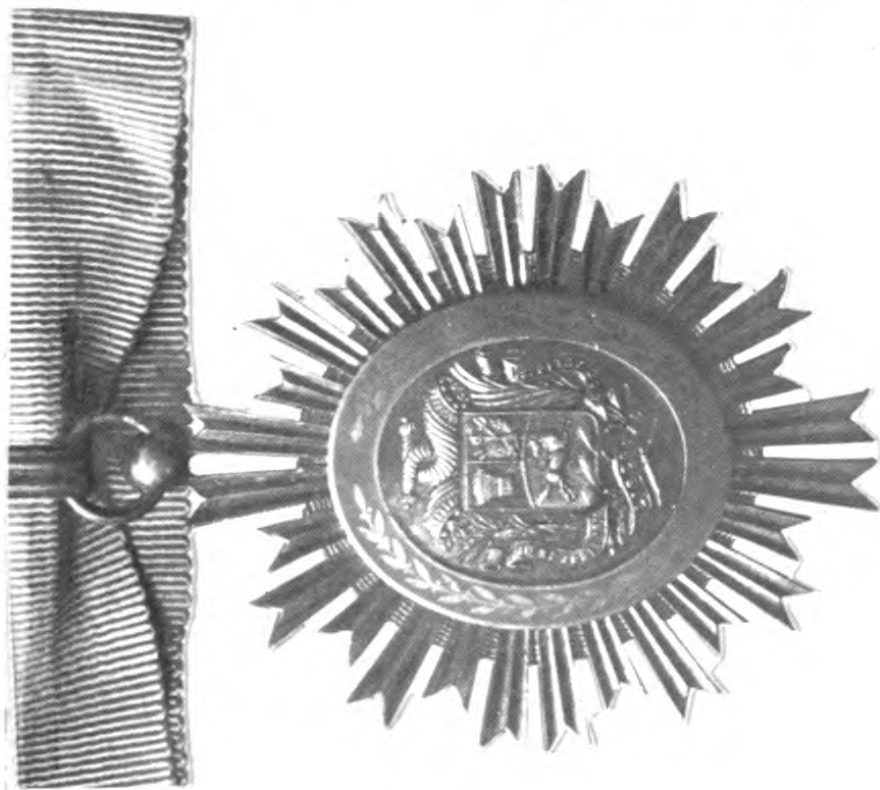
MEDAL OF THE BUST OF BOLIVAR. One authority describes an oval gold or silver medal, 18 x 15 mm., having obverse and reverse the same as the decoration above described.

Rosa, *Monetario*, no. 1495.

ORDER OF MERIT. This was instituted by Congress on August 28, 1861, for foreigners as well as citizens, with three classes; Grand Cross, Commanders and Chevaliers. The decoration is a six-pointed, ball-tipped white-enamelled star resting on a green-enamelled wreath. On the obverse medallion are the arms of the republic, encircled by a blue band inscribed *REPÚBLICA DE VENEZUELA*\*. On the reverse centre is *29 AGOSTO 1861* encircled by a blue band inscribed *HONOR AL MERITO*\*. The ribbon is red edged with light blue.

Cuomo, II, p. 877.

THE LEGION OF NATIONAL DEFENSE. This was founded by Congress on April 16, 1903, in the 92nd year of Independence and the 45th year of the Federation, for civil and military services to the nation. It consists of three classes. The decoration is a Greek cross, 35 mm., having on the obverse medallion the arms of Venezuela and on the reverse the words *DEFENSA NACIONAL*. The ribbon is red, blue and orange. The cross of the first class is enamelled in gold, the second class in blue and the third class in red.



Bust of Bolívar



Order of Merit

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The following plaques or *escudos* are mentioned by Rosa in his *Numismatica* 1904, but no other description is given.

Battle of Victoria, February 12, 1814.

Battle of Boca-Checa, March 31, 1814.

Campaign of July and August, 1816.

Battle of Quebrada Honda, August 2, 1816.

Battle of Juncal, September 27, 1816.

Battle of Macuritas, January 28, 1817, inscribed "*Arroja Asombroso.*"

Battle of San Felix April 11, 1817, inscribed "*Ano de 1817 San Felix.*"

Assault on Porto Cabello, November 7, 1823.

MEDAL FOR LA GUAIRA AND VILLAR 1816. This medal was authorized by the Spanish authorities during their occupancy of the country. It is an oval silver medal, 22 x 19 mm., bearing in the obverse centre a winged victory sounding a trumpet and holding a laurel wreath in the left hand. This is encircled by *A LOS ESFORZA<sup>s</sup> VENCEDORES EN LAG<sup>A</sup> Y VILLAR*. On the reverse centre are military trophies, around which is *13 Y 14 DE SEPTIEMBRE DE 1816*.

Fonrobert, No. 8026; Schulman sale, Feb. 9, 1926, No. 802.

## INDEX

In the index which follows the names of the medals described in this monograph are listed in a single alphabet. Names of the countries in which the medals are believed to have originated are indicated by abbreviations in the parentheses following the name of the medal or decoration. The asterisk signifies that the piece so indicated is illustrated on the plates—usually on the plate immediately preceding or immediately following the page indicated. When several medals or decorations have been issued for the same battle or the same city (e. g. Abtao), the order is alphabetical by countries rather than chronological. Medals whose origin is in controversy are listed under the countries to which they are attributed in this monograph.

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# NUMISMATIC NOTES AND MONOGRAPHS

No. 57



## GREEK AND ROMAN PLATED COINS

BY  
WILLIAM CAMPBELL

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## PUBLICATIONS

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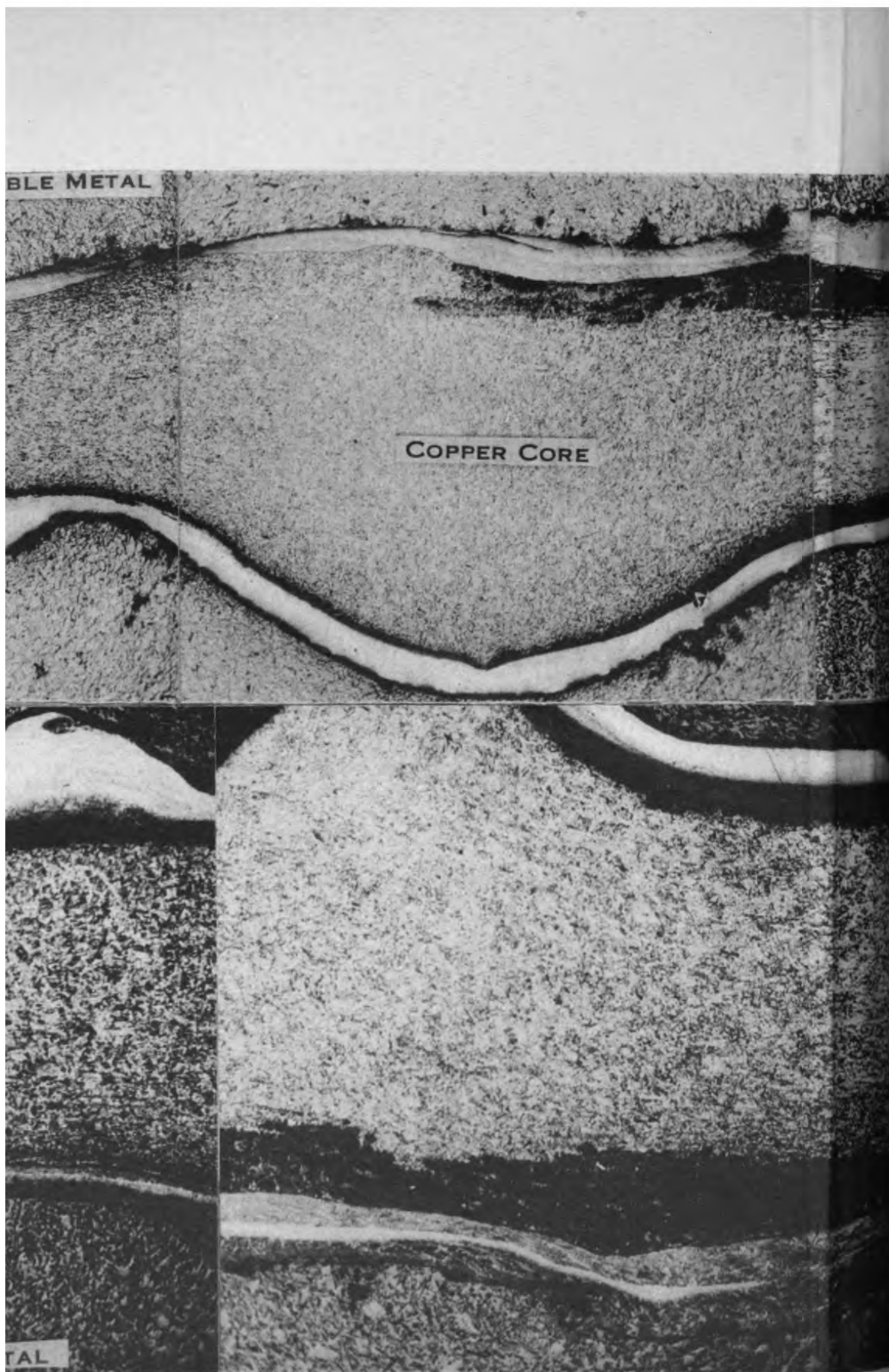


# GREEK AND ROMAN PLATED COINS

BY  
WILLIAM CAMPBELL



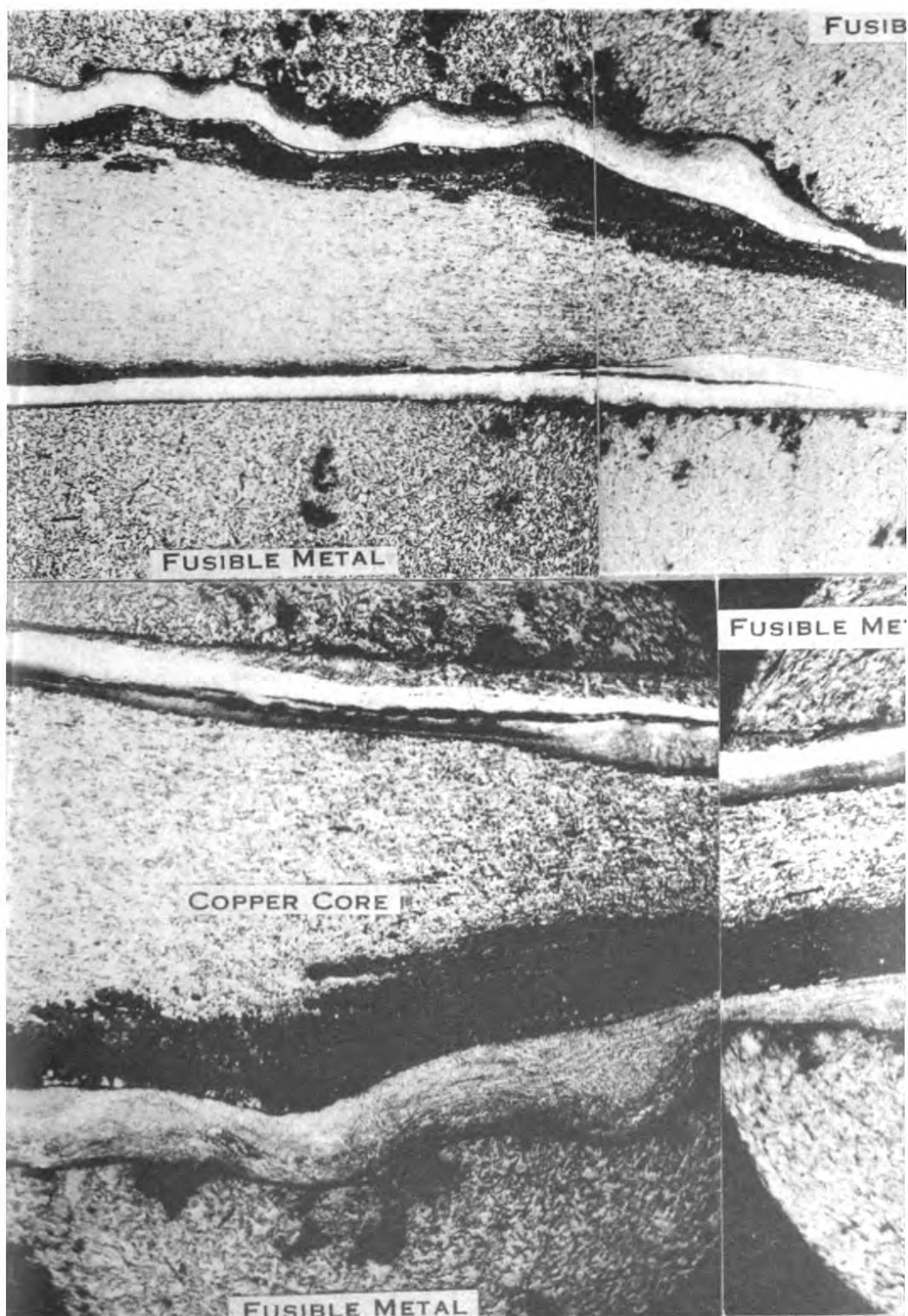
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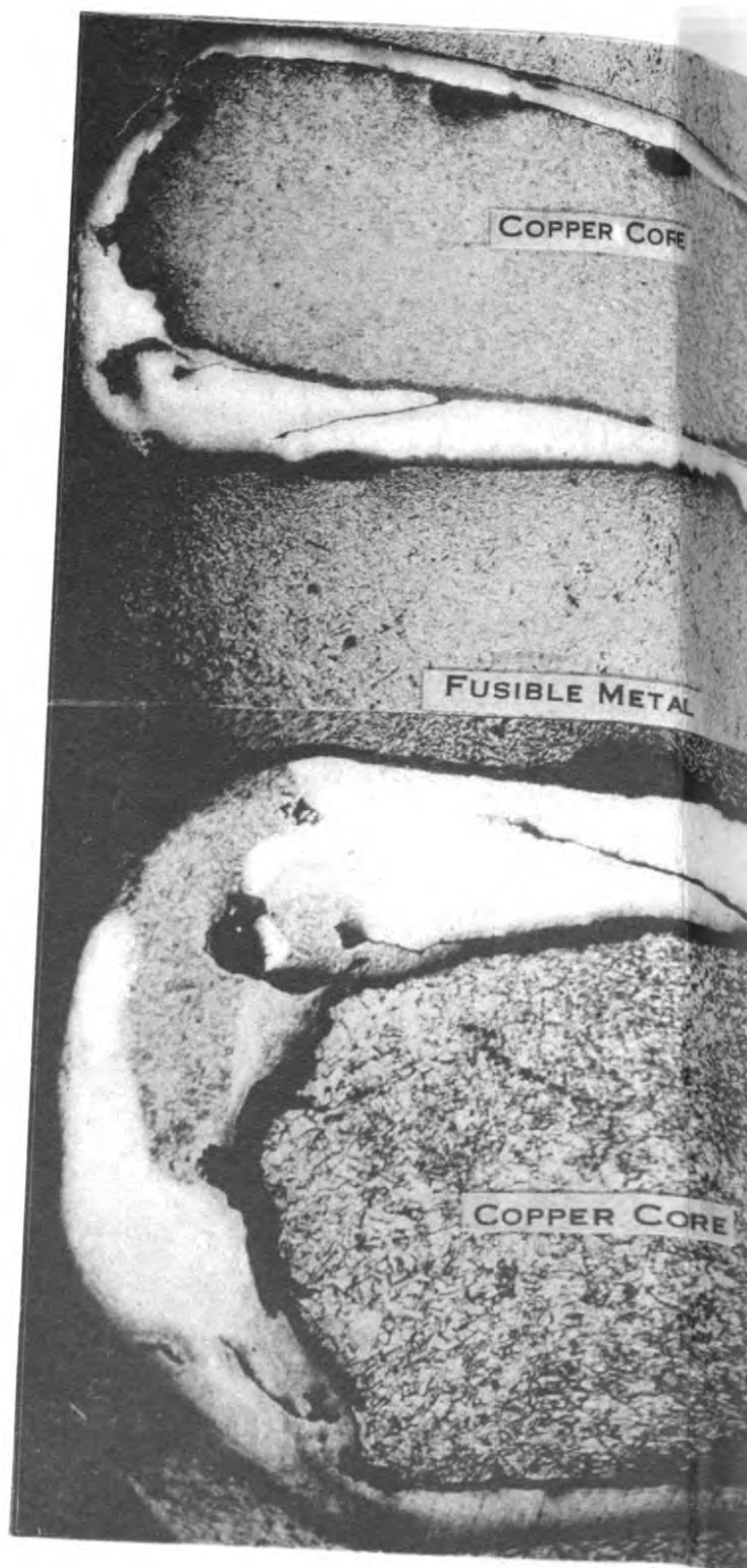
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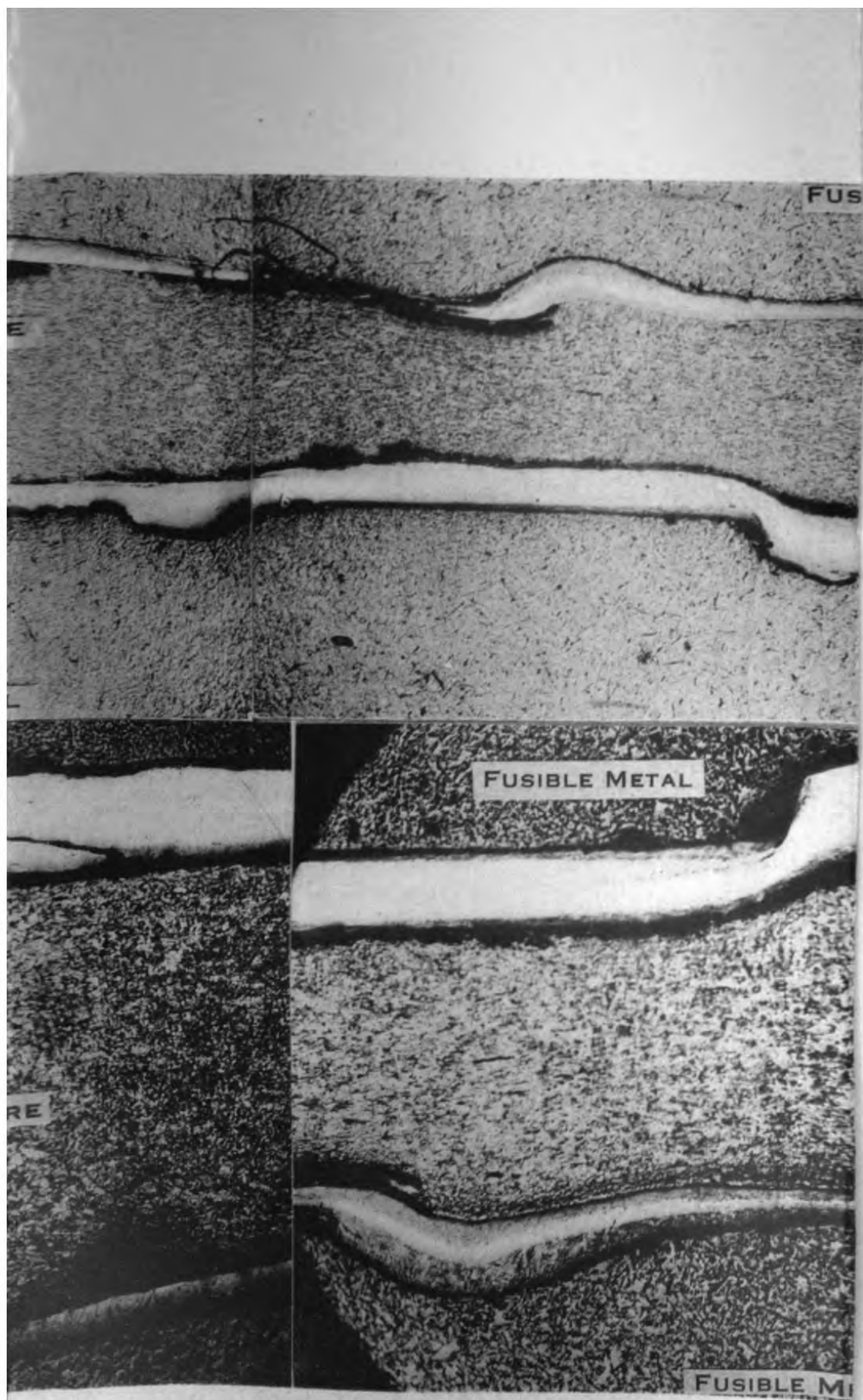
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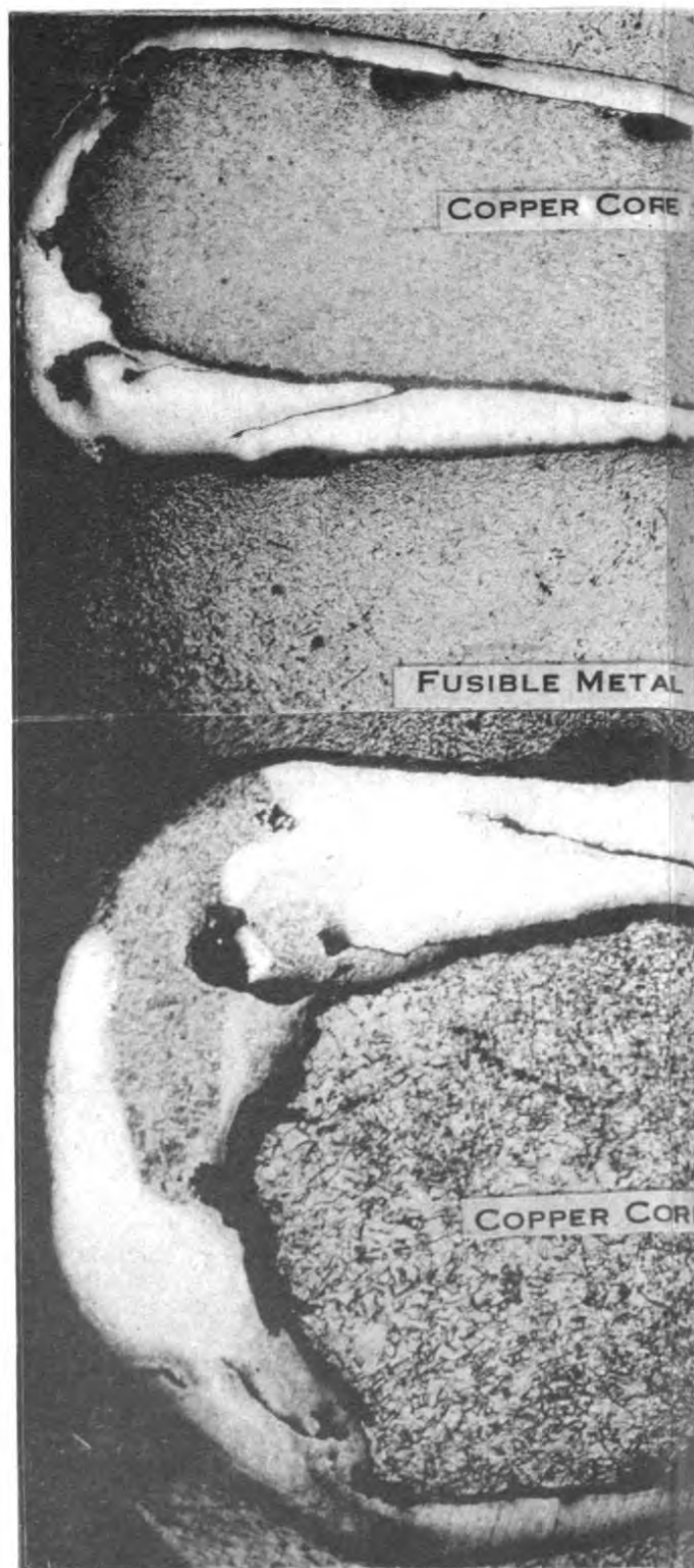




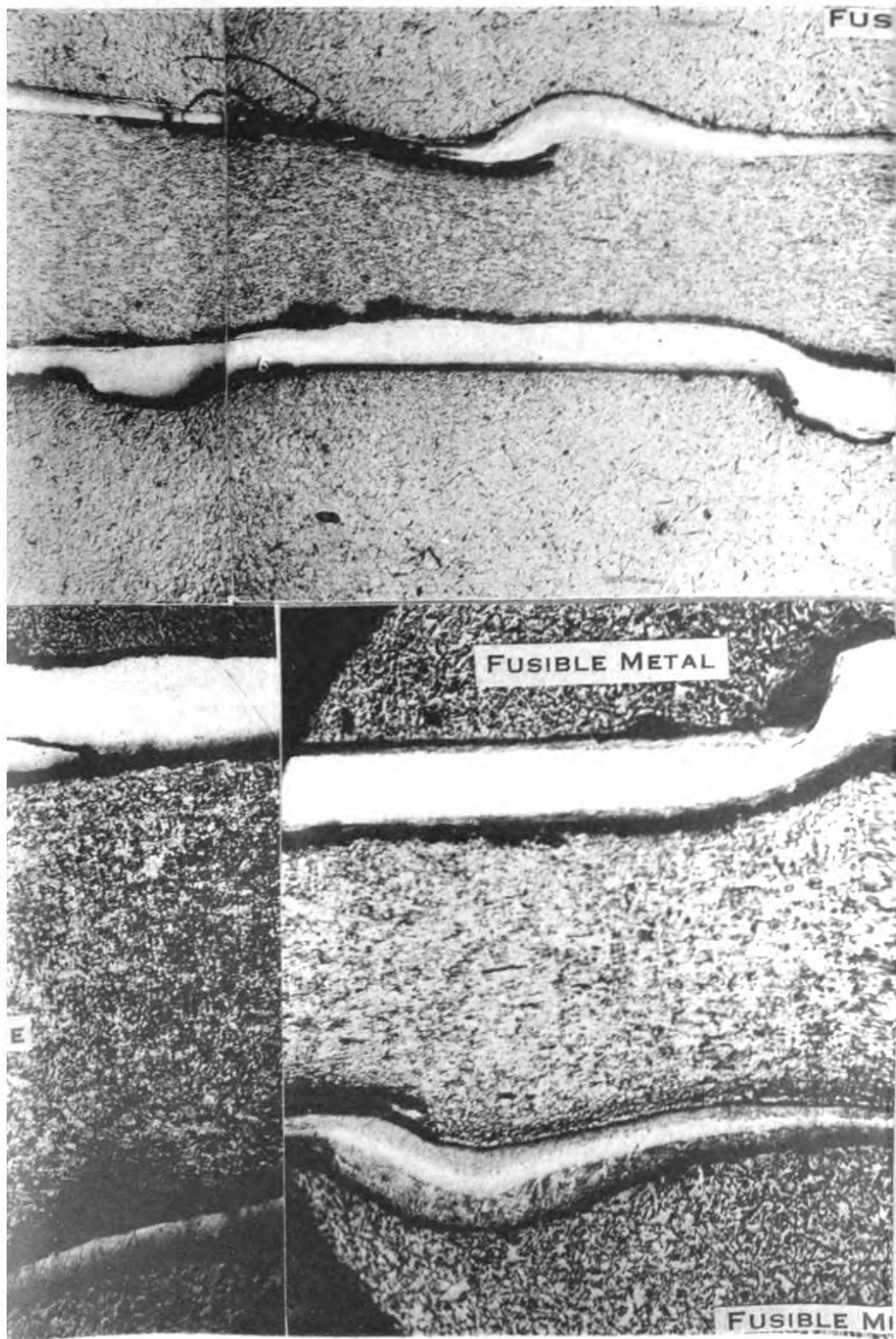


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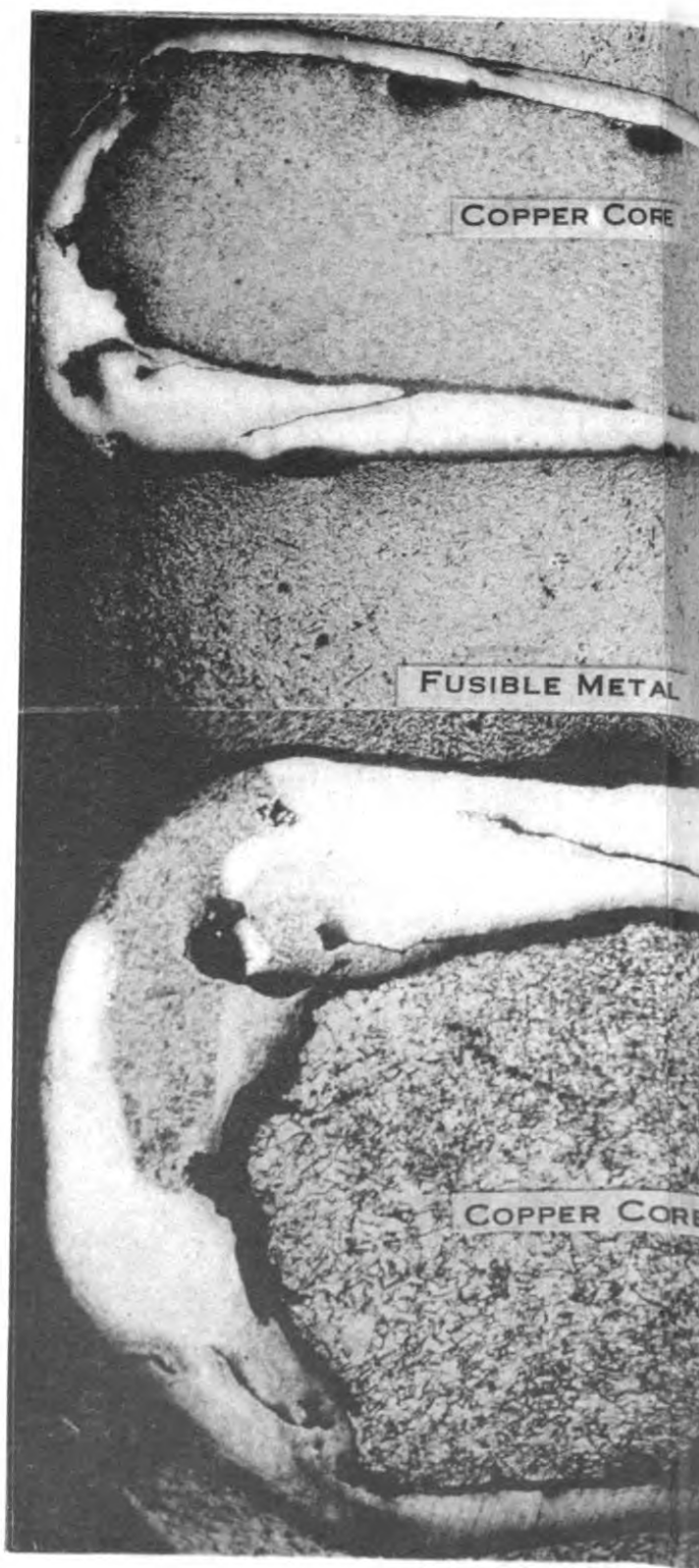
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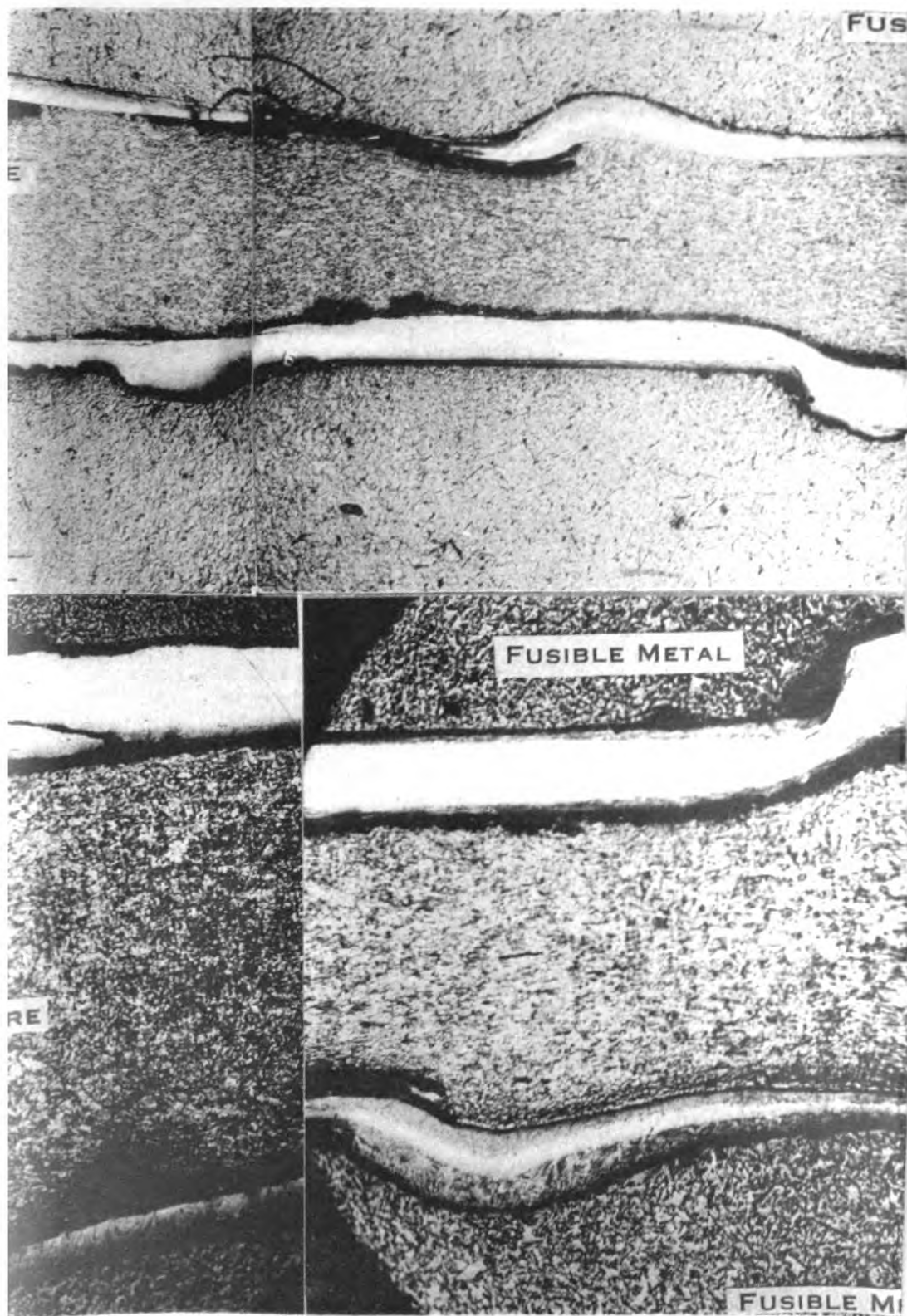






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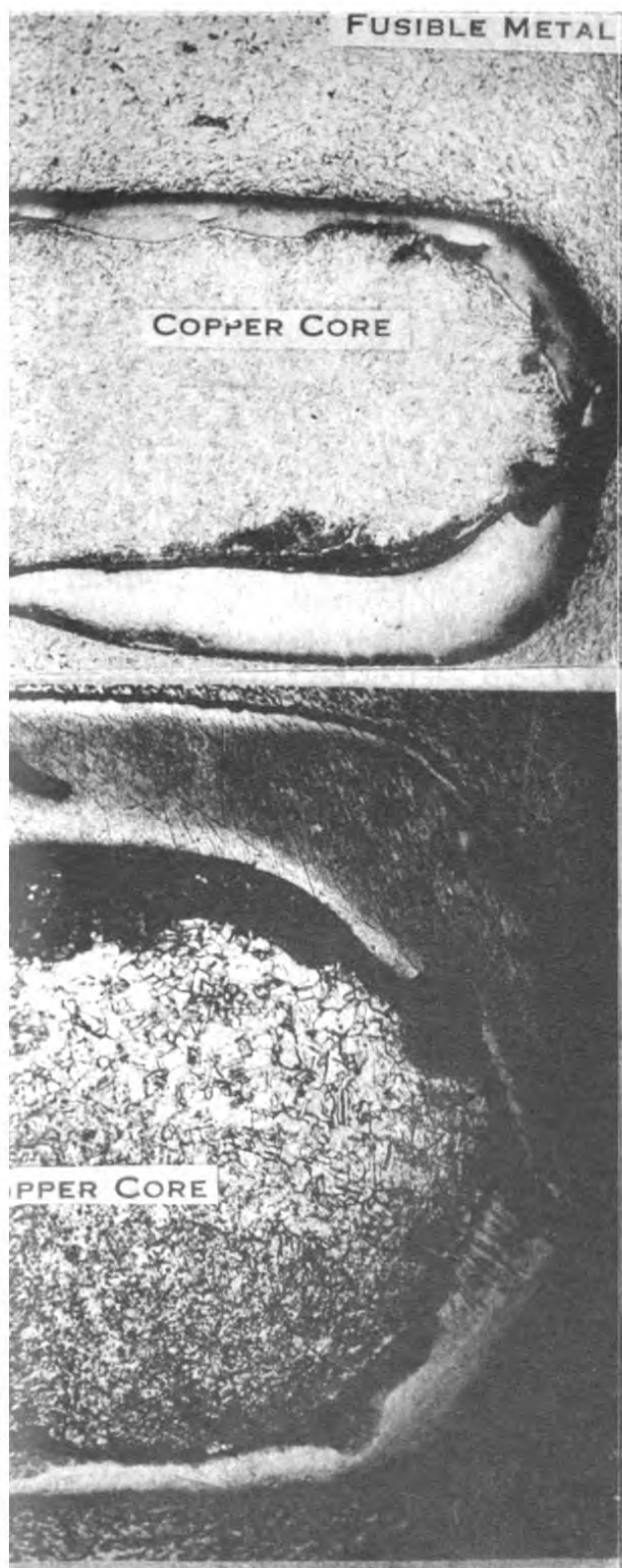
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## GREEK AND ROMAN PLATED COINS

BY WILLIAM CAMPBELL

During the summer of 1928 I listened to an interesting discussion between Dr. E. P. Robinson of Newport and the Curator of the American Numismatic Society as to the probable method or methods of silver plating as exemplified in ancient coins—the *fouillée* or *subaerati* pieces. Dr. Robinson had given considerable study to the problems involved and had made a number of experiments. Up to that time, however, he had been unsuccessful in enlisting the aid of anyone prepared to carry forward the investigation scientifically. Knowing the wonderful results to be obtained with the metallographic microscope, especially after etching, I offered to make a metallographic examination of any samples he cared to submit. This monograph is the result of that offer.

A preliminary examination was made of a couple of specimens which showed clearly that the silver coating was stuck to the copper core by means of an alloy of silver and copper with a low melting point—in other words, the alloy containing 72% silver and 28% copper, melting and freezing at 778° C., called the eutectic alloy, or, in the trade, pure silver solder.

The examination was complicated by the presence of more or less corrosion of the copper core beneath the silver coating, but enough uncorroded areas were found to permit exact determinations. To make sure that these were not exceptional cases, Dr. Robinson supplied ten ancient counterfeits as well as an experimental piece of his own to demonstrate close-plating. The other two of the coins under consideration in Part I were supplied by The American Numismatic Society. Most of these specimens had been carefully cut into halves by Dr. Robinson. One each of these respective halves was mounted in the manner hereinafter described. The other half sections not so treated are illustrated on Plates A and B in order to show where the cut was made.

To Dr. Robinson I am indebted for the original idea of this work as well as for most of the samples on which to work.

To Mr. E. T. Newell and the other officers of the Society I am indebted for encouragement and advice.

Lastly to Mr. Allen of the Department of Metallurgy of Columbia University I am extremely grateful for his painstaking work in photographing the many different structures met with in this examination.



## PREPARATION OF SPECIMENS.

In order to obtain a flat cross section for microscopic examination the *half coins* were mounted in small brass cups filled with fusible metal (bismuth, 4; lead, 2; tin, 1; and cadmium, 1) melting at about 75° C. Each specimen was then filed down flat by rubbing the flat surface on a "smooth" file held horizontally in a vise. Having obtained a perfectly flat surface the piece was rubbed on No. O emery paper until all the file marks had disappeared. It was then rubbed on Nos. O and OO French emery papers, stopping as soon as the scratches of the previous paper had been removed. The next step consisted of polishing out all the scratches of the OO French paper on a horizontal revolving disc, covered with fine broadcloth armed with levigated alumina and kept quite moist. After four or five minutes on this broadcloth disc the surface is perfectly bright and all scratches have disappeared. The specimen is carefully washed under the tap to free it from all polishing powder and then dried with absolute alcohol.

## MICROSCOPIC EXAMINATION.

The sample is now ready for examination. Under the microscope, which is illuminated by prism in a collar just above the objective so as to give vertical light, the specimen shows a pinkish core of copper, surrounded by an envelope of bright white silver, which is again surrounded by the fusible metal matrix. In most of the specimens the copper core showed corrosion in the form of copper oxides or carbonate lying between the silver coating and copper as irregular patches. By vertical light this corrosion product appears in different shades of gray, but with oblique light it has its natural colors, claret red to clear red for the oxides, and green for the carbonate.

To bring out the structure of the silver coating and of the copper core the specimen is etched with a solution of hydrogen peroxide in ammonia by gently rubbing the surface with a swab of absorbent cotton. The etching is stopped as soon as the crystalline structure of the copper becomes clear to the eye. The specimen is then washed thoroughly under the tap and dried with absolute alcohol as before.

## PHOTOGRAPHY.

The microscope takes the place of the lens in the camera. The image on the screen is focussed just as in visual examination, by the fine adjustment of the microscope.

Two equipments were used. The first was an old-fashioned vertical microscope and camera and this was used for magnifications of 60 and some at 100 diameters of the first micrographs taken. Later an inverted microscope was used for a magnification of 500 diameters as well as for lower magnifications at 25 and 100 diameters. This equipment uses a prism between the objective and the ocular to throw the image from the vertical into the horizontal, because the camera lies in the horizontal position and thus can be extended to any length desired. This prism naturally reverses the image, so that pictures taken with this equipment seem and are reversed with respect to those taken with the normal vertical microscope-camera equipment. Where necessary, attention is called to this in the text.

The first twelve of the coins which follow are fairly well distributed geographically as well as in point of time. Five of the Greek coins bear types of cities in southern Italy where plated coins are frequently found. One is from Neapolis in Macedonia and another from Thebes in Boeotia. Of

the Roman coins four are issues of the republic, the so-called consular or family coins dating from the second to the first centuries B. C. The last is a piece bearing the head of the Emperor Domitian (81-96 A. D.).

From the description it will be seen that "coin 13" is an experimental piece prepared by Dr. Robinson, showing the structures which result when tin is used as a soldering medium. When the enlargements of this experimental piece showed that there was no analogy with the structures of the previously studied coins, Experiments A and B were decided upon. In the first copper-silver solder was used—in the second the Sheffield plate method was duplicated—that is, no solder at all was used. Enlargements of the cross sections show the structures thus obtained and make them available for comparison with those developed in the coins.

Plate A



1.



2.



3.



4.



5.



6.



8.



9.



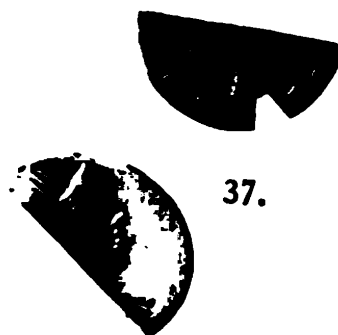
13.



11.



35.



36.

37.

SEGMENTS OF PLATED COINS, OBVERSES.

Plate B



1.



2.



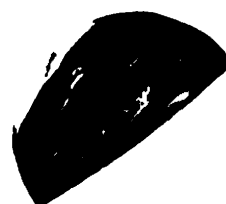
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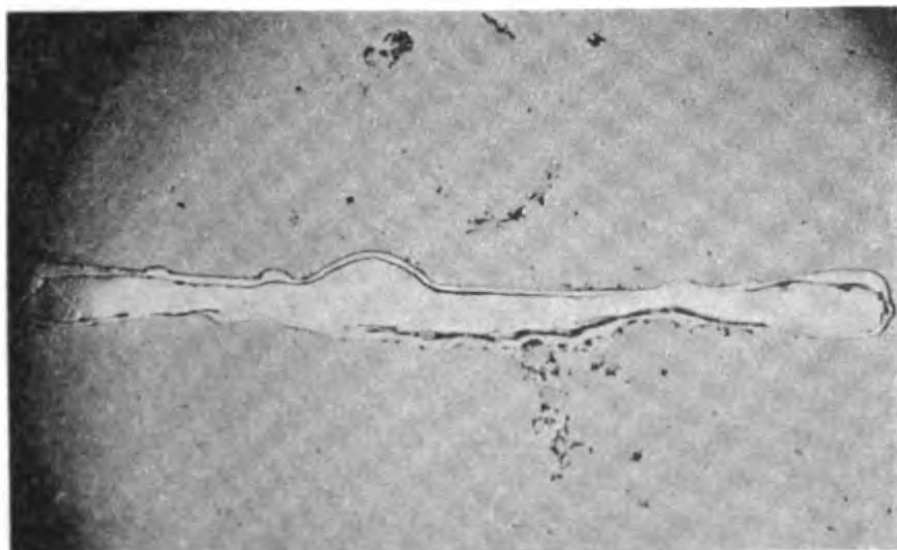
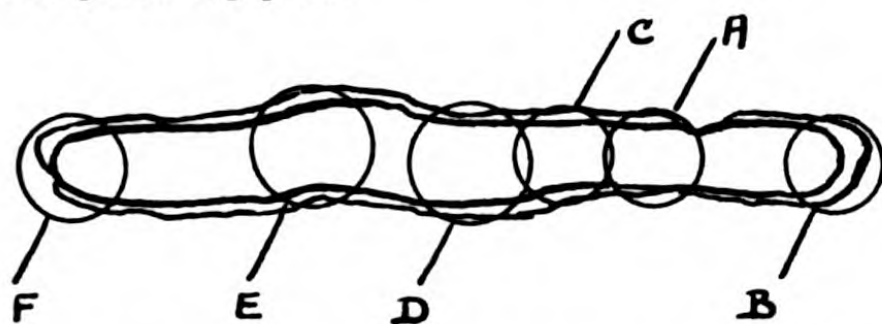


36.

SEGMENTS OF PLATED COINS, REVERSES.

## EXAMINATION OF COINS

COIN 1. Roman Republican Denarius, Lucretia Family (about 100 B. C.). *Obv.* Head of Neptune. *Rev.* Cupid on dolphin. No visible signs of a fold in the silver coating. For the line of the section, see preceding plate.



COIN 1. Frontispiece (upper section) x 25. Enlargements at consecutive points on the cross-section of the coin, with the photographs coordinated.

## 8 GREEK AND ROMAN

COIN 1. Figs. 1 to 6 (Frontispiece—lower section) x 45. Taken at points marked in diagram above, and giving a further enlargement (almost continuous) of the cross-section.

Fig. 1 at F x 45. The two layers of silver are joined at the upper left corner by a patch of eutectic.

Fig. 2 at E x 45. A thin band of eutectic shows between the copper core and the silver in the upper part, while the lower silver coating consists of a thin film of silver surrounded on both sides by a matrix of eutectic.

Fig. 3 at D x 45. Practically the same; on the extreme lower r. the film of silver has disappeared—the coating is wholly eutectic. The black zone is copper oxide, due to corrosion.

Fig. 4 at C x 45. The upper silver coating is in two distinct layers, with a layer of eutectic both inside and outside. The lower coating is all eutectic; the black zone, mainly copper oxide.

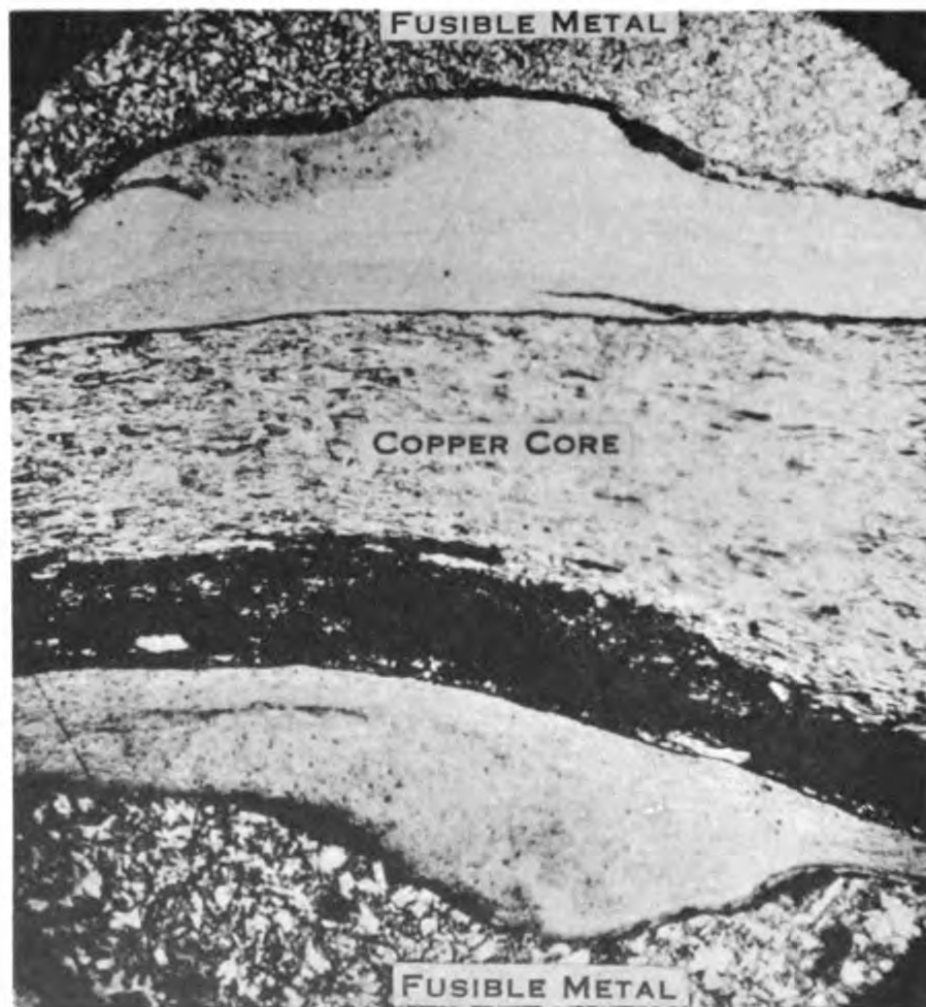
Fig. 5 at Z x 45. Very similar to Fig. 4.

Fig. 6 at B x 45. Irregular patches of eutectic show between the core and the lower coating. The upper part of the copper core is badly corroded. In striking, the copper core was made to flow considerably in places; compare Figs. 2, 4 and 5, where the grain-structure of the copper has been elongated parallel to the direction of the flow.



## PLATED COINS

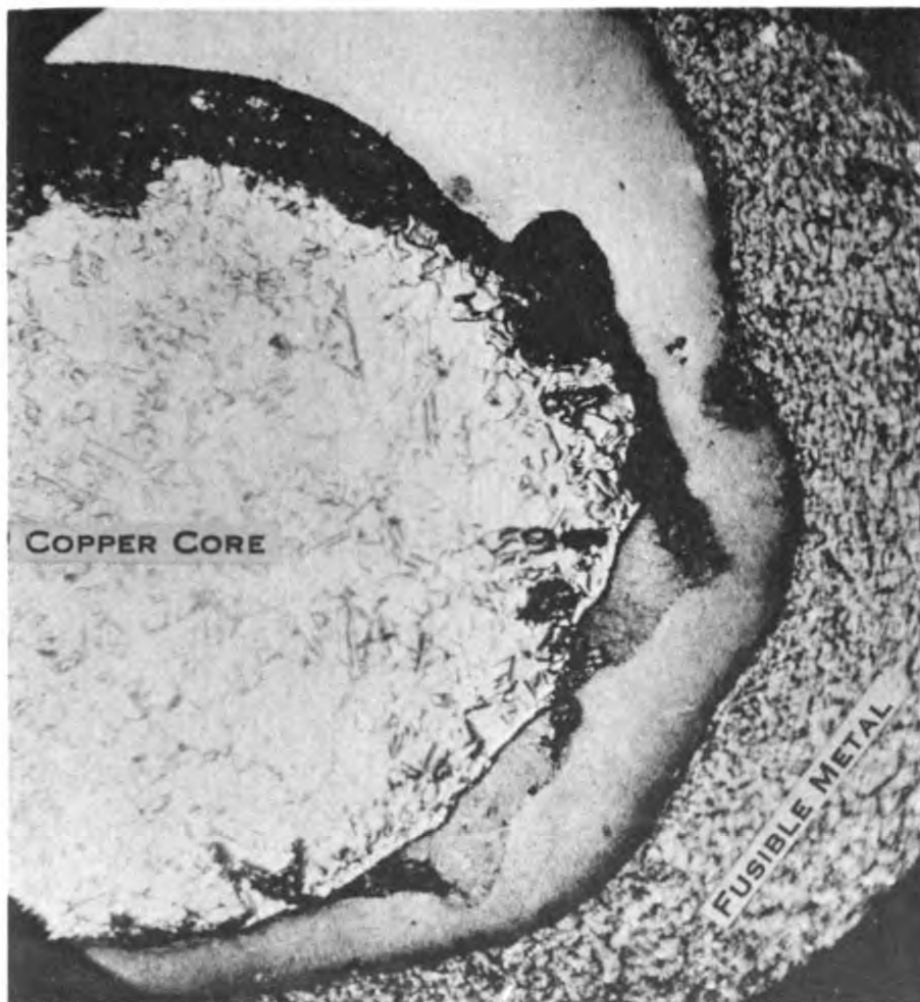
CONCLUSION. From what follows it is evident that the silver coating was not produced by dipping a copper blank into either molten silver or a molten silver-copper alloy. The process of producing Sheffield plate, in which a coating or sheet of silver was attached to a copper slab by heating the two in close contact to a temperature at which they firmly adhered to each other, through the production of a film of the eutectic alloy by diffusion, could not give rise to the structures met with here. It would seem that silver solder had been employed, using an alloy of 72 silver, 28 copper, possibly with a flux, and that, having attached the silver coating, more silver solder was added, and a second heating caused this additional solder to "run", dissolving more or less of the original silver coating and producing the structures seen in Figures 1<sup>b</sup>, 1<sup>c</sup>, 1<sup>d</sup> and 1<sup>e</sup> on the under side of the coin. It is possible that a single disc of thin silver was cupped or dished over the copper blank, then the edges flattened over till they roughly met near the center, just as silver buttons have been made in the past. A supply of silver solder was applied at this point and the whole heated strongly until the solder flowed easily. Such a method would account for the structures shown on the lower side in Figures 1<sup>c</sup>, 1<sup>d</sup> and 1<sup>e</sup>, for the excess solder at C could undoubtedly dissolve the silver coating at that point. But this does not explain the structures on the upper side at C and A, Figures 1<sup>d</sup> and 1<sup>e</sup>.



3. COIN 1;

Fig. 7 at A x 60.

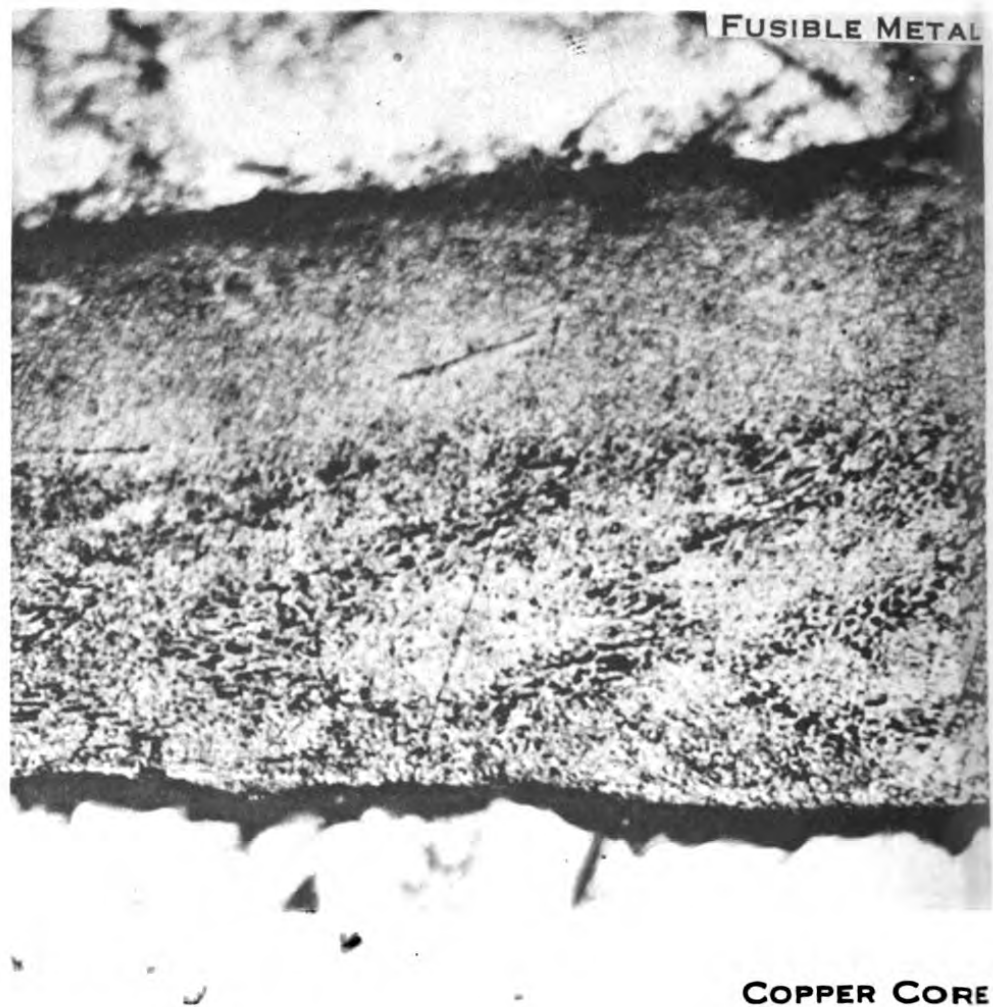
The copper grains have become so much elongated that the structure seems fibrous.



4. COIN 1;

Fig. 8 at B x 60.

Showing practically no cold working, for the copper grains remain equiaxial (undistorted).



5. COIN 1; Fig. 9 x 500 (above).

The outer layer of the coating is pure silver, the inner one is eutectic.

6. COIN 1; Fig. 10 near D x 500 (opposite).

Showing diffusion of the silver into the eutectic.



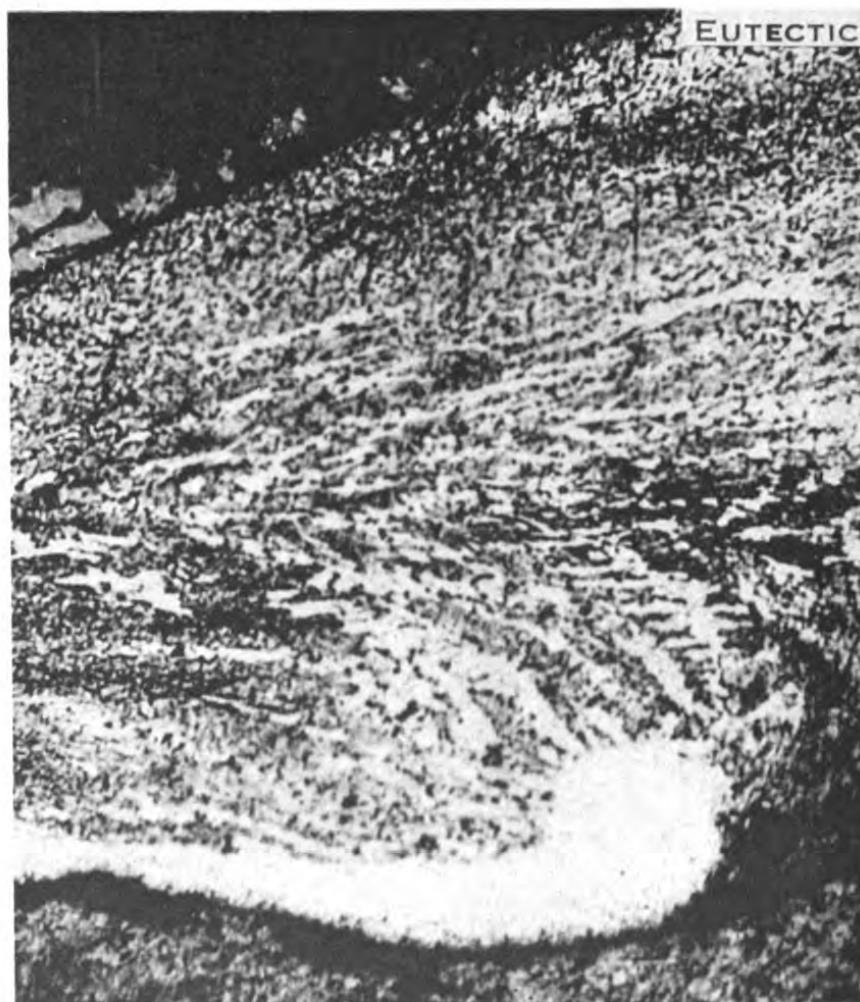


7. COIN 1; Fig. 11 at E x 500 (above).  
The coating consists of the eutectic with a band of silver at the center.

8. COIN 1; Fig. 12 at F x 200 (opposite).  
The black cavities contain greyish particles—probably a flux (borax?). Next the core is a patch of eutectic; between this and the coating is a layer of dendritic crystals of silver surrounded by the eutectic, and containing 80-85% of silver, with a freezing point of 850-870° C.







9. COIN 1; Fig. 13 at A x 250.

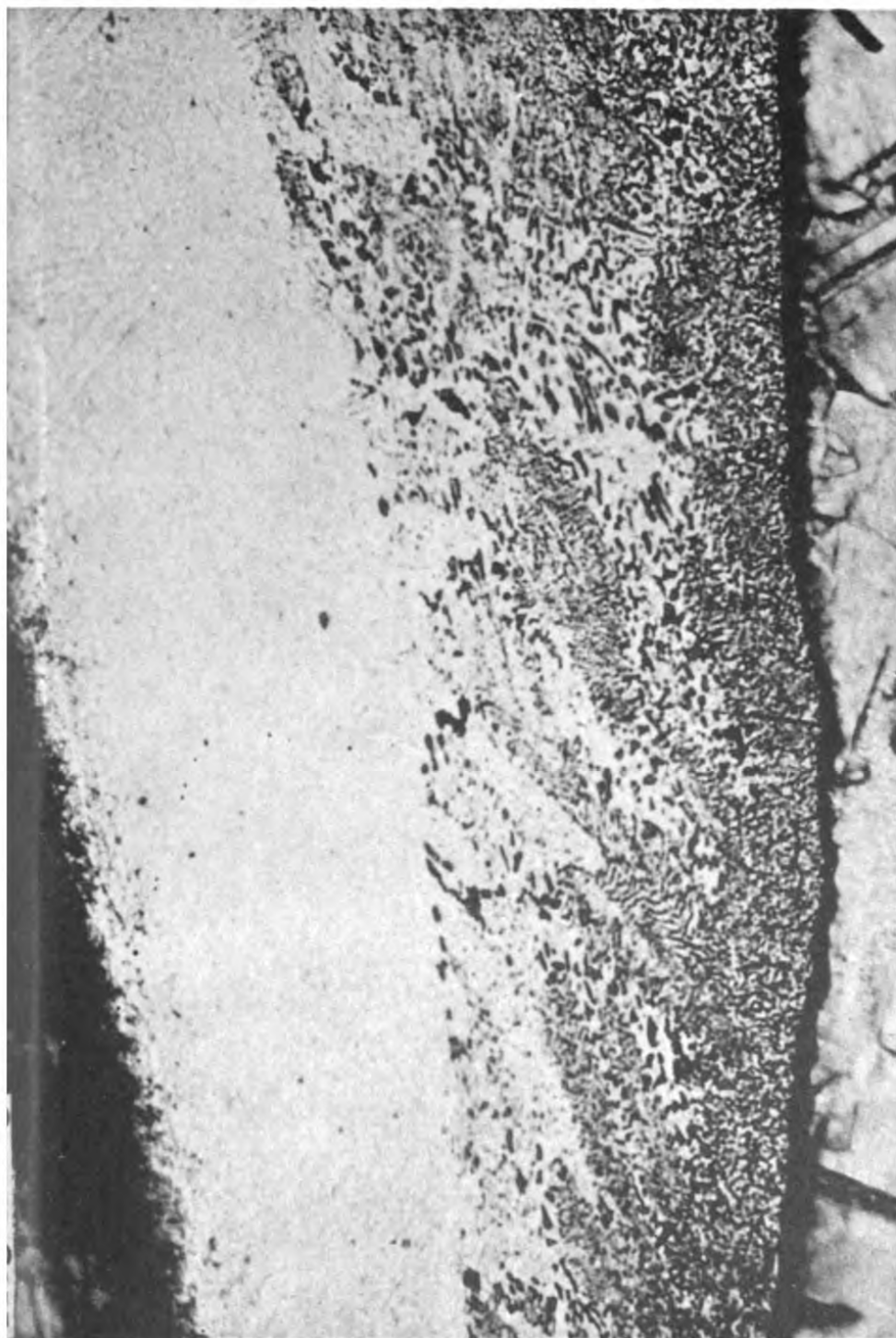
The film of silver is very thin; the dendrites in the eutectic show marked flow due to striking.

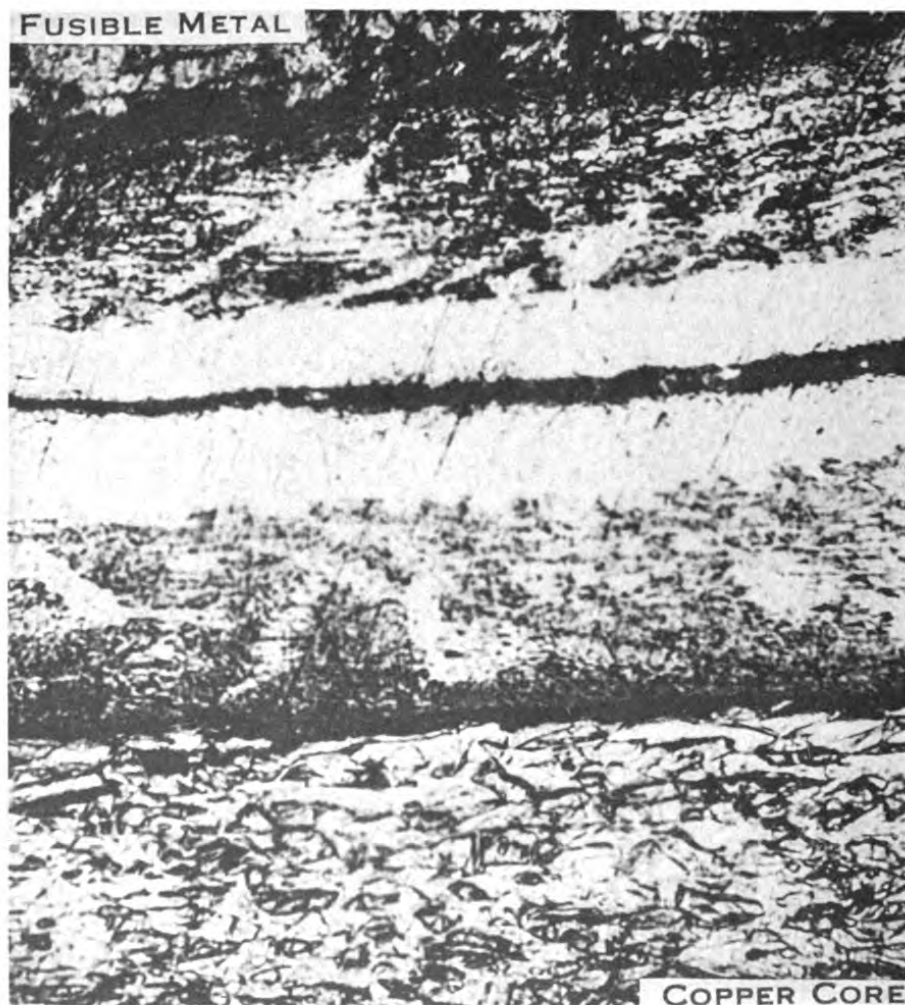
10. COIN 1; Fig. 14 at B (?), x 500.

The lower part of Fig. 6, showing diffusion of the silver very clearly. Next the copper is a thin layer of eutectic, while diffusing up into it from the silver below are dendrites of silver somewhat flattened in the striking of the coin. The crystals of the copper core show but little distortion.

COPPER CORE



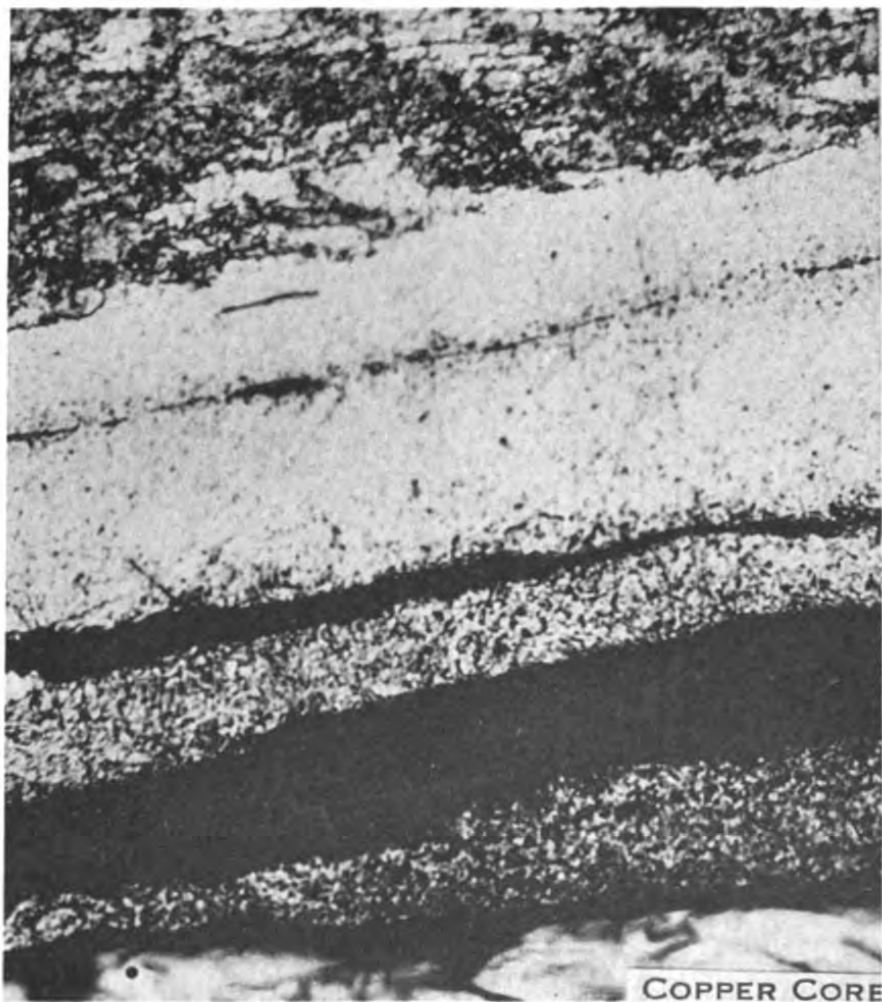




11. COIN 1;

Fig. 15 near C x 250.

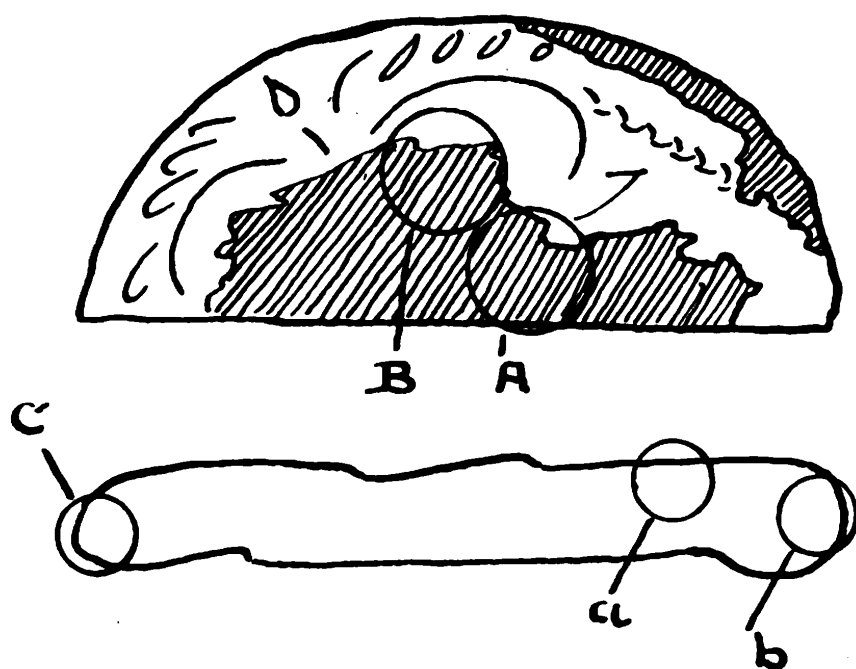
To show details of structure. The silver coating is in two parts separated by the dark band which contains hard particles of what appears to be flux. Next this are two bands of silver, both covered with a layer of eutectic and silver dendrites. The outer layer and the copper core both show the effect of striking, for the grains are markedly flattened.



12. COIN 1;

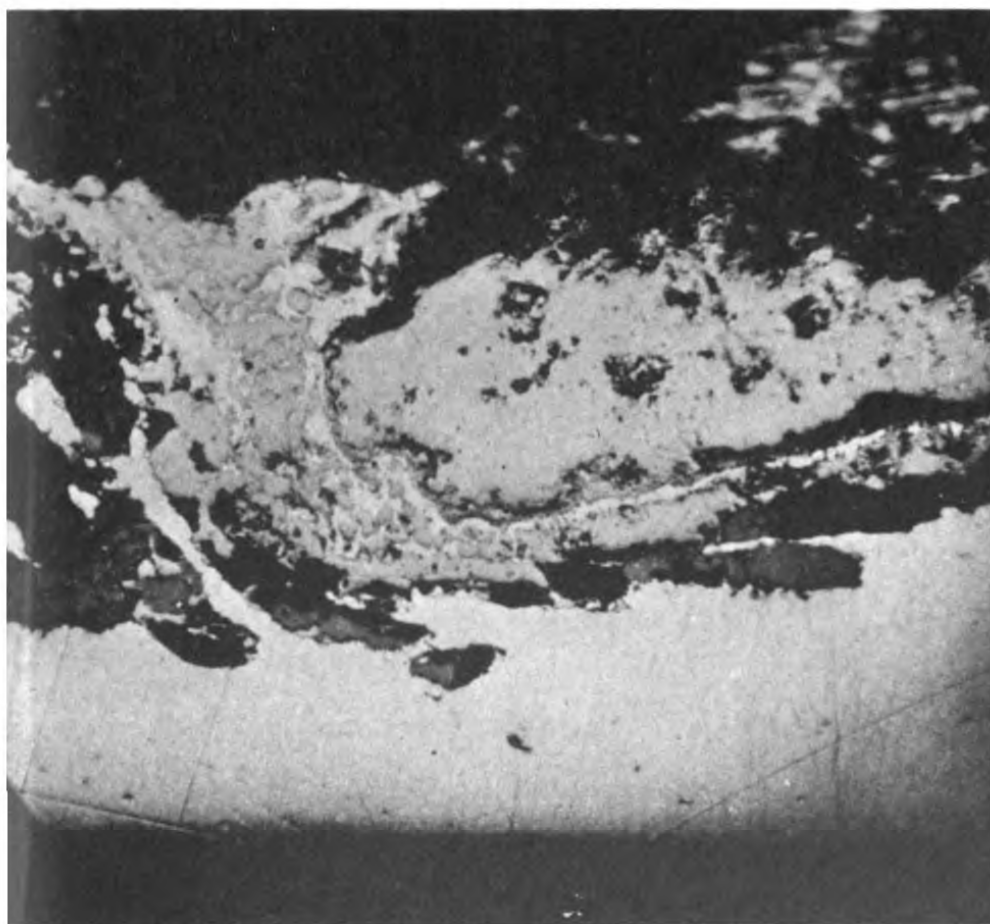
Fig. 16 x 500.

Showing a similar area. The silver is in two layers, surrounded top and bottom with the eutectic. At the top the eutectic contains flattened silver dendrites as before, while below, the eutectic is separated by two dark bands, the lower of which shows numerous hard grey patches of what is probably flux.

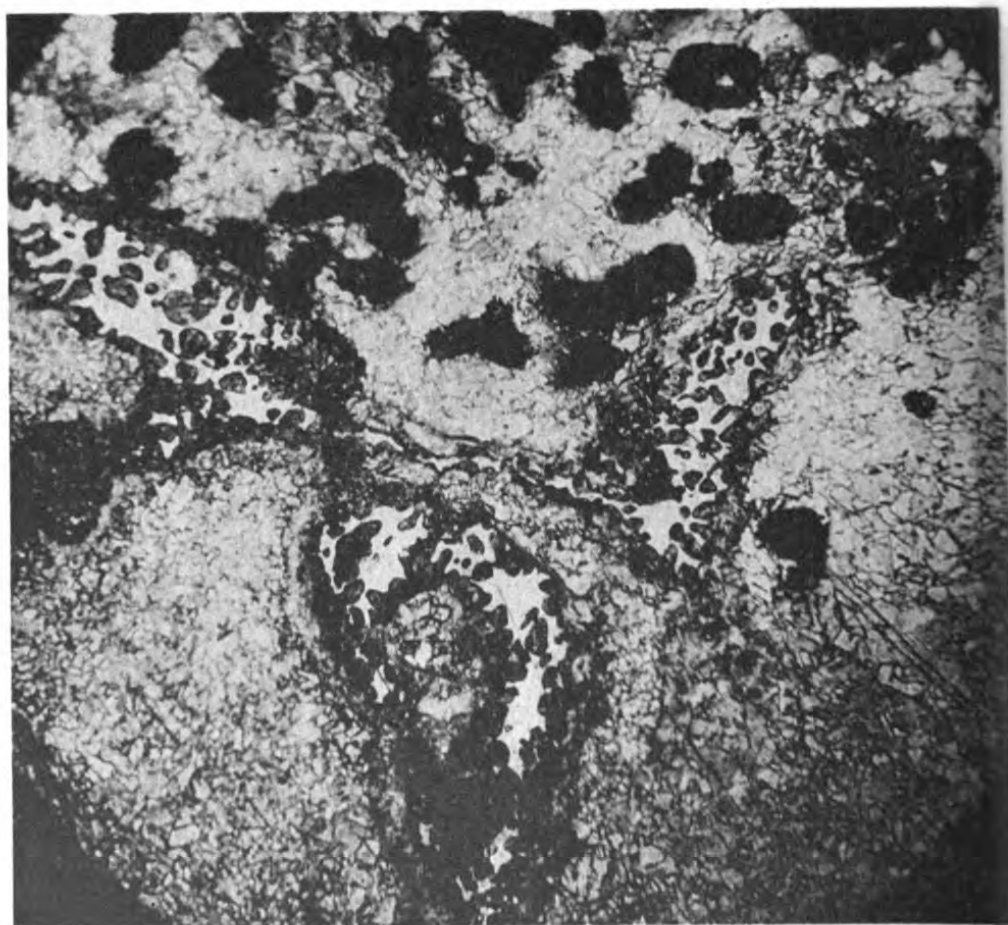


13. COIN 2; Roman Family Denarius. Minucia family about 90 B. C. *Obv.* Helmeted head to left. *Rev.* Two warriors with sword and shield. The silver coating is very thin, worn through in places and showing copper oxide below. A surface section was made by rubbing on the finer emery papers just enough to produce a flat surface at a few points. The specimen was then polished in the usual way. As polished the film of silver is seen as patches usually surrounded by copper oxide. On etching, the coating was found to be mainly the copper-silver eutectic.

CONCLUSION regarding Coin 2. The structure indicates either the dipping of the copper blank in molten copper-silver alloy or the sprinkling of the copper with the powdered alloy and heating until the alloy ran over the surface.



14. COIN 2;                      Fig. 1 (area at A) x 60.  
The white veins are the silver coating, the lighter gray is the copper, the darker is the copper oxide, while the very dark is copper carbonate.



15. COIN 2; Fig. 2 at B x 60 (above). Etching has brought out the granular structure of the copper. The darker fringes round the silver are copper oxide while the black holes are the areas occupied by the copper carbonate which has been etched out.

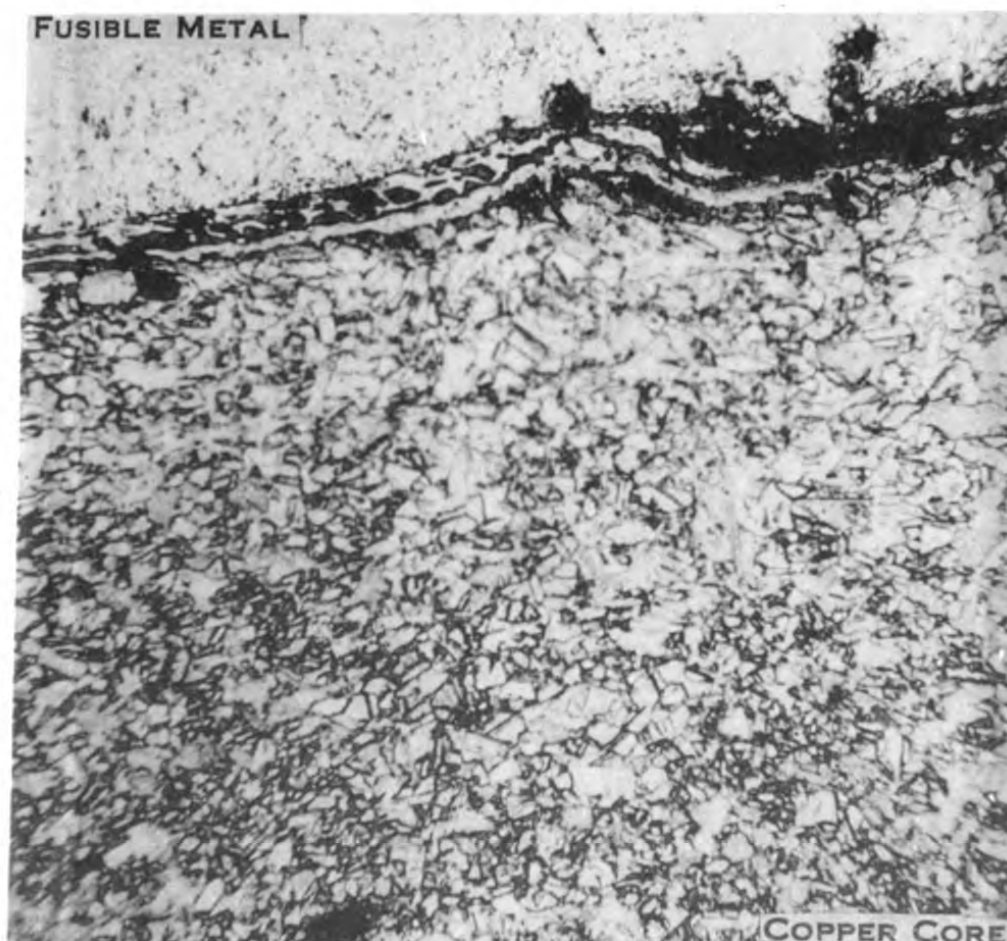
16. COIN 2; Fig. 3 x 500 (on opposite page). Shows white areas of the copper-silver eutectic surrounded for the most part by copper oxide.





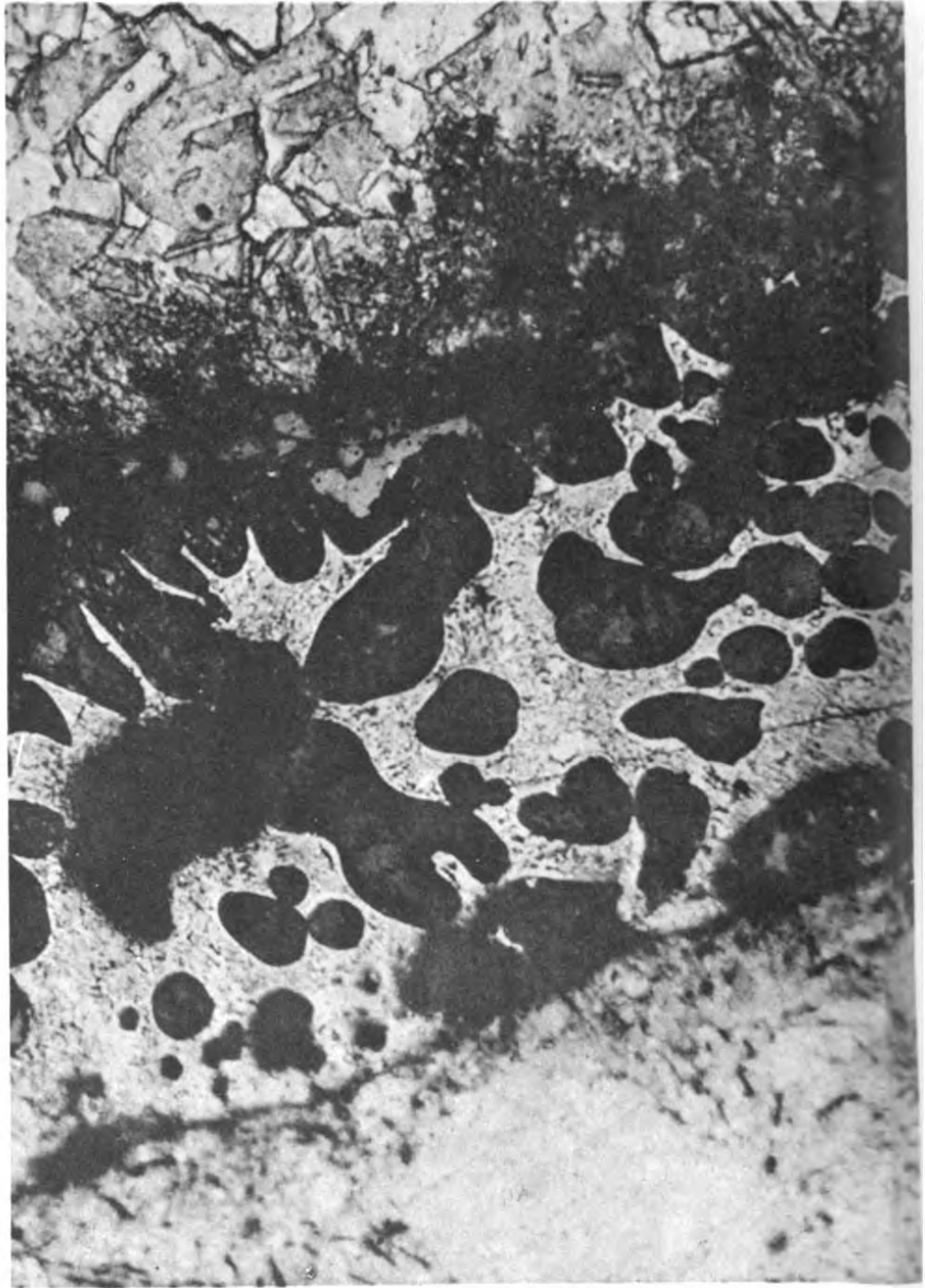


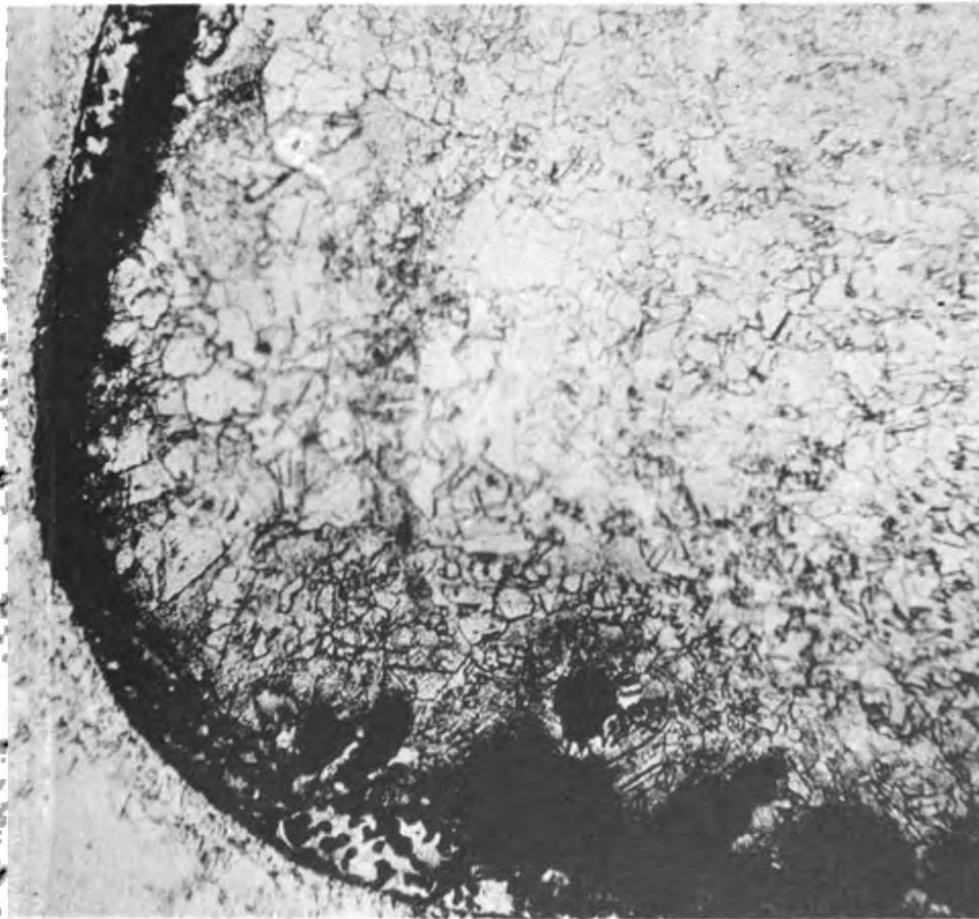




17. COIN 2; Fig. 4 x 500 (opposite).  
Similar to Fig. 3.

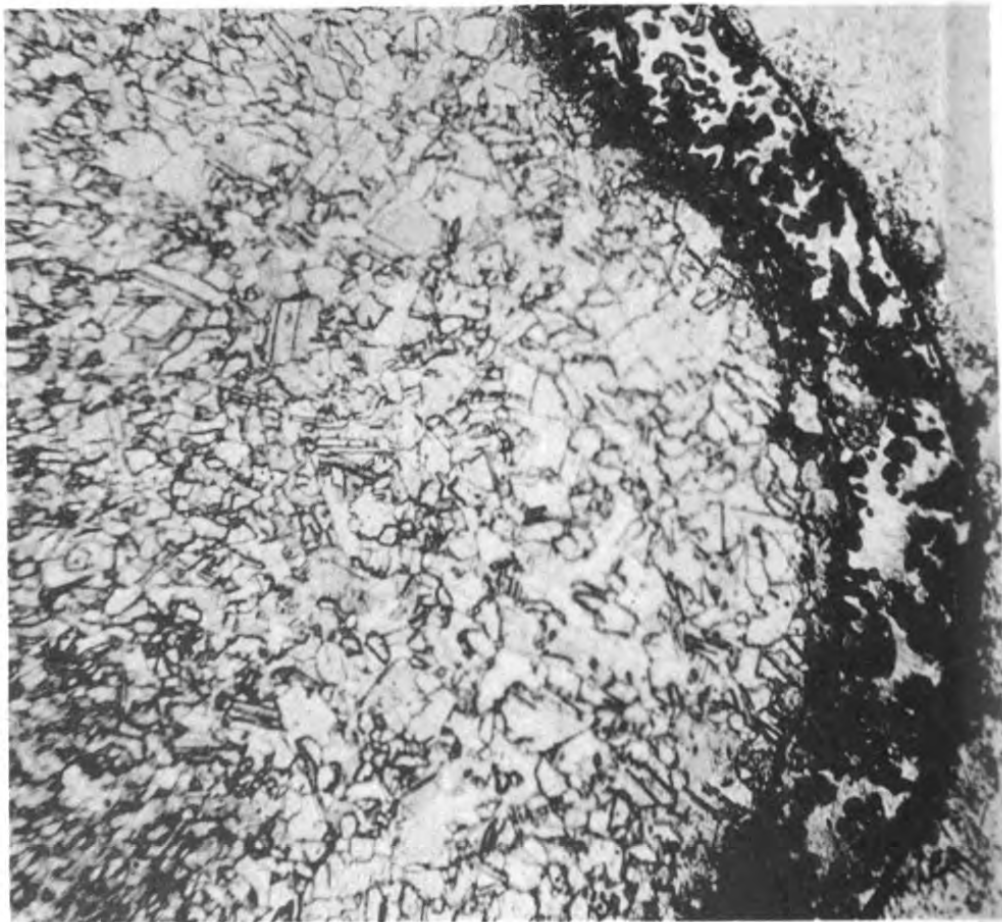
18. COIN 2; Fig. 5 at A x 100 (above).  
The coin was then cut, mounted and the cross section polished and etched. The coating is very thin and is not a simple sheet of silver.



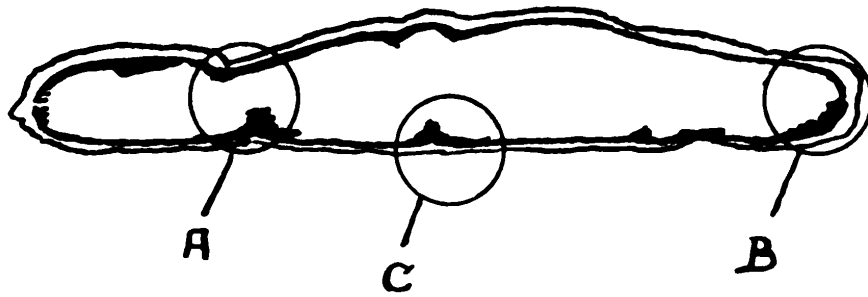


19. COIN 2; Fig. 6 at C x 500 (opposite). Shows the details of structure. In the eutectic are dark patches of oxidized copper in the form of grains of excess copper, showing that the coating contained an excess of copper, i.e. contained less than 72% silver.

20. COIN 2; Fig. 7 at B x 100 (above). Showing patches of the eutectic alloy surrounded by copper oxide.

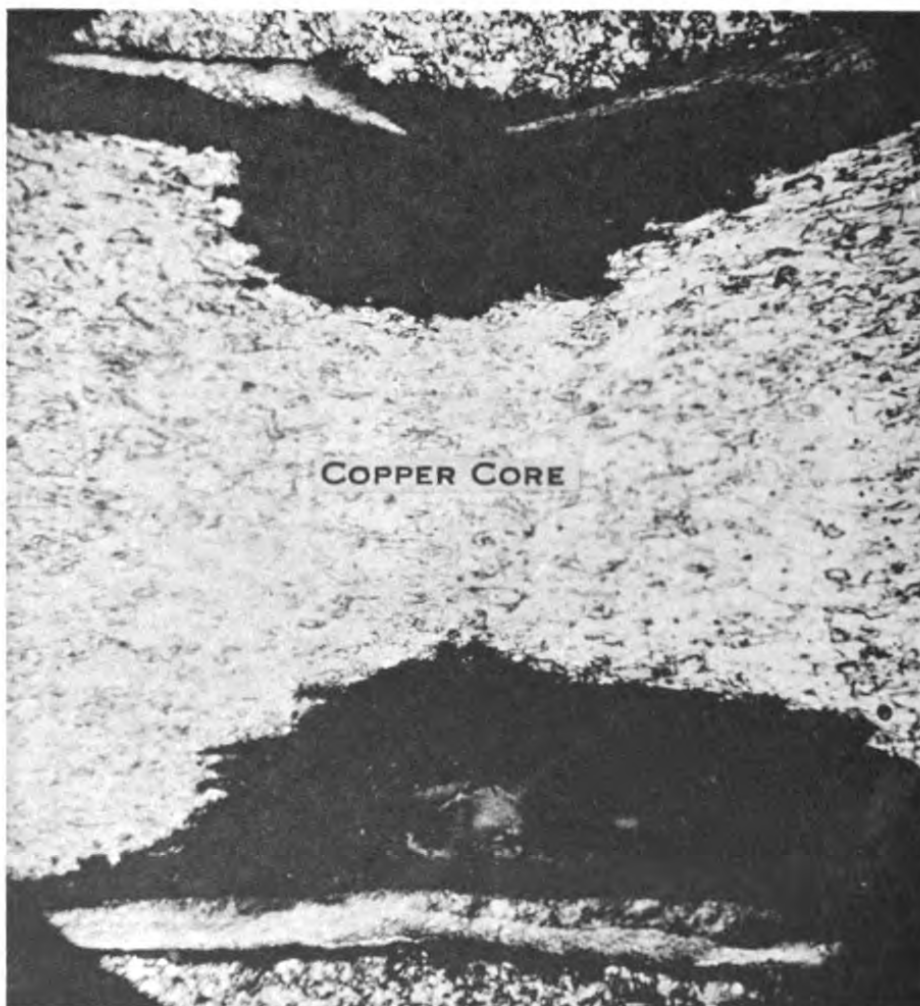


21. COIN 2;                      Fig. 8 at C x 100.  
Shows much more of the eutectic alloy.



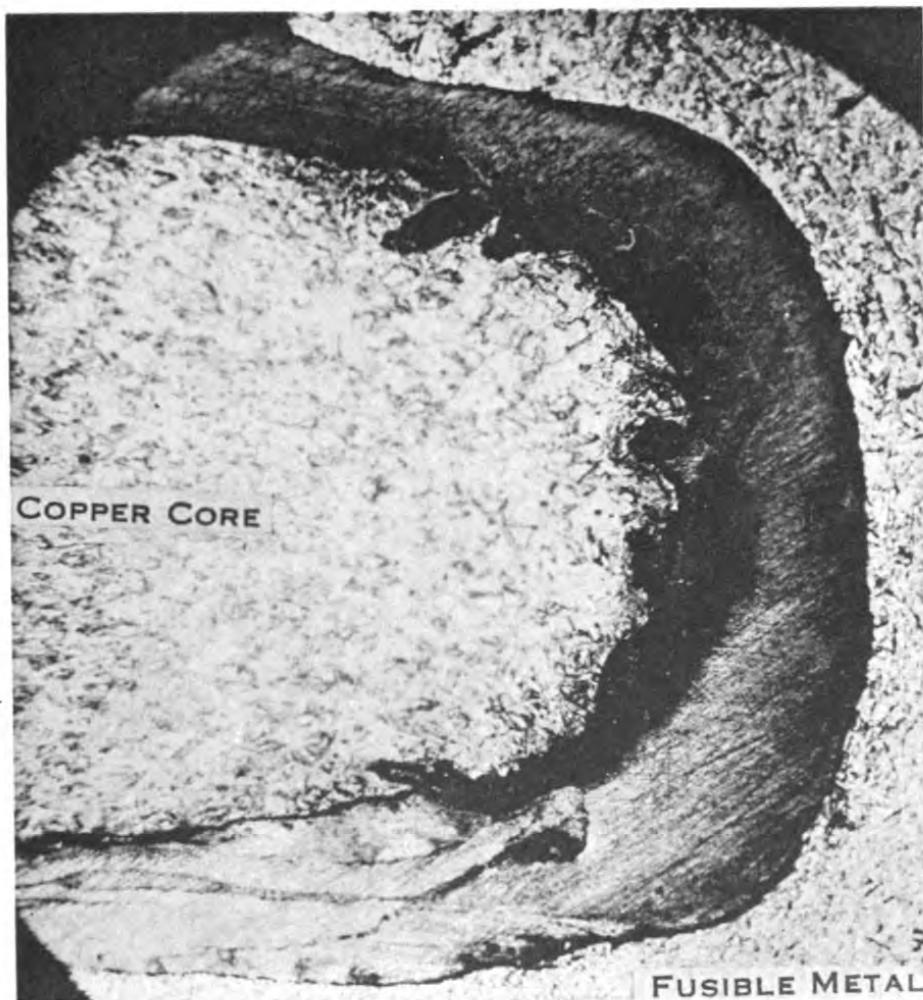
22. COIN 3; Roman. Denarius of Domitian. *Obv.* Head to right. *Rev.* Pallas with spear. Appears to be lapped or folded over at a worn spot on the edge. Under the microscope there is no distinct lap.

CONCLUSION. Such a structure would be produced by making a cup and cap of sheet silver and joining them to the copper core by means of the copper-silver solder, but on account of the irregularity of the eutectic alloy it is quite possible that no solder was used and the eutectic was produced by heating the two metals in contact as in the process of making Sheffield Plate.

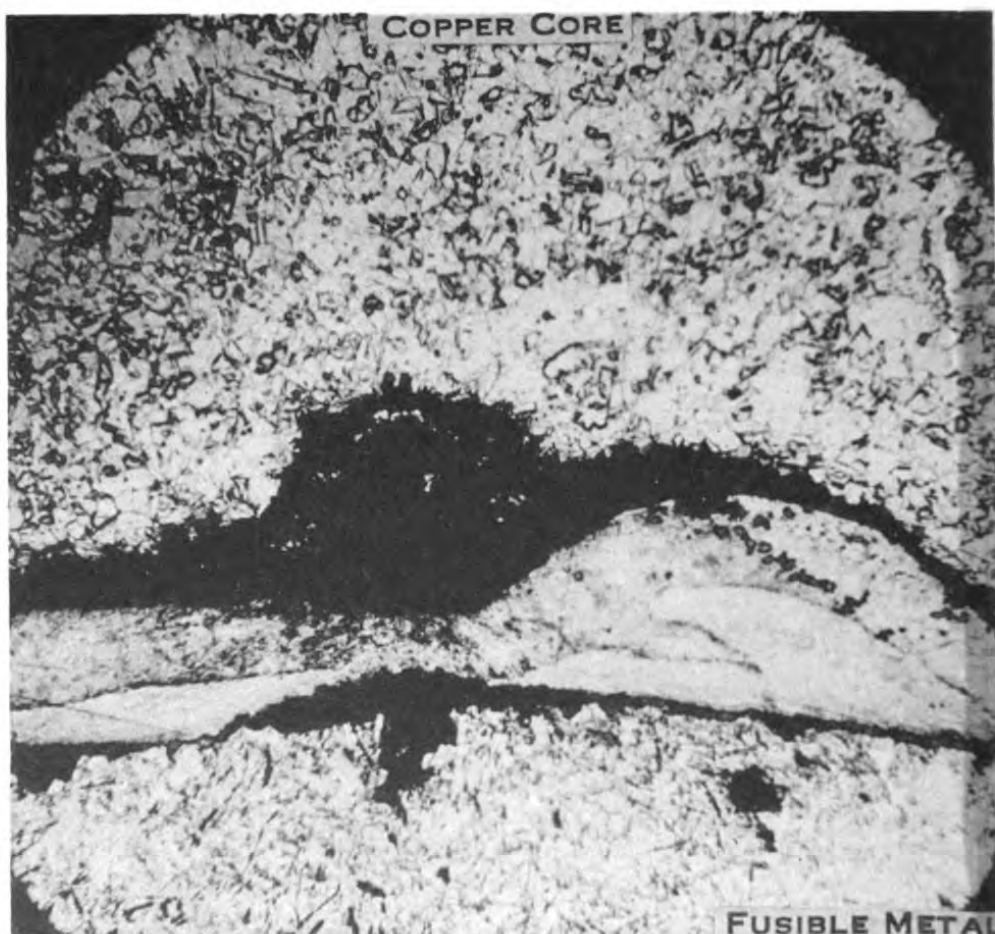


23. COIN 3; Fig. 1 at A x 60.  
Shows the upper and lower silver coatings. The upper one is broken and the copper core below is deeply corroded; while the lower coating shows no break, the corrosion is equally deep.





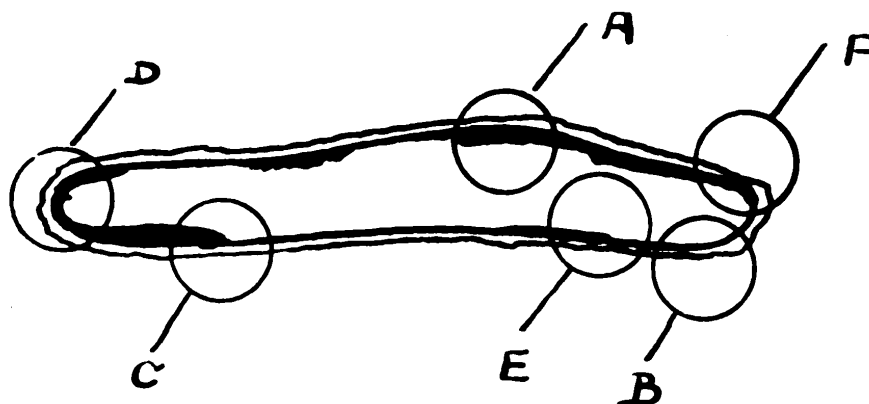
**24. COIN 3;** Fig. 2 at B x 60.  
Shows four layers in the lower coating. Two of these are silver, two are the eutectic alloy, and this seems to be the junction of two separate pieces of silver.



25. COIN 3; Fig. 3 at C x 60 (above). Shows the copper core above also corroded. The silver coating consists of an irregular envelope of silver on a thicker layer of the eutectic alloy.
26. COIN 3; Fig. 4 x 500 (on opposite page). Typical of this coating. Below the copper core is a thin irregular film of oxide. The coating consists of a thick layer of copper-silver eutectic and a thin outer skin of silver, diffusing into the eutectic.







27. COIN 4; Neapolis. Campania, Italy, about 300 B. C. *Obv.* Head to right. *Rev.* Man-headed bull; Victory above. No laps visible. One side badly corroded. Under the microscope the coating is thick for the most part. In several places, especially one side, the copper core is deeply corroded. One end of the section shows a distinct lap, the two pieces of silver being joined by a thick band of eutectic. The first four micrographs show the structure as polished with the marked oxidation of the copper core.

CONCLUSION. This piece also points to the use of an upper and lower silver coating joined to each other and to the copper core by means of the copper-silver solder. As in the last sample, it is possible that no solder was used and that the method was the same as that of Sheffield plating.



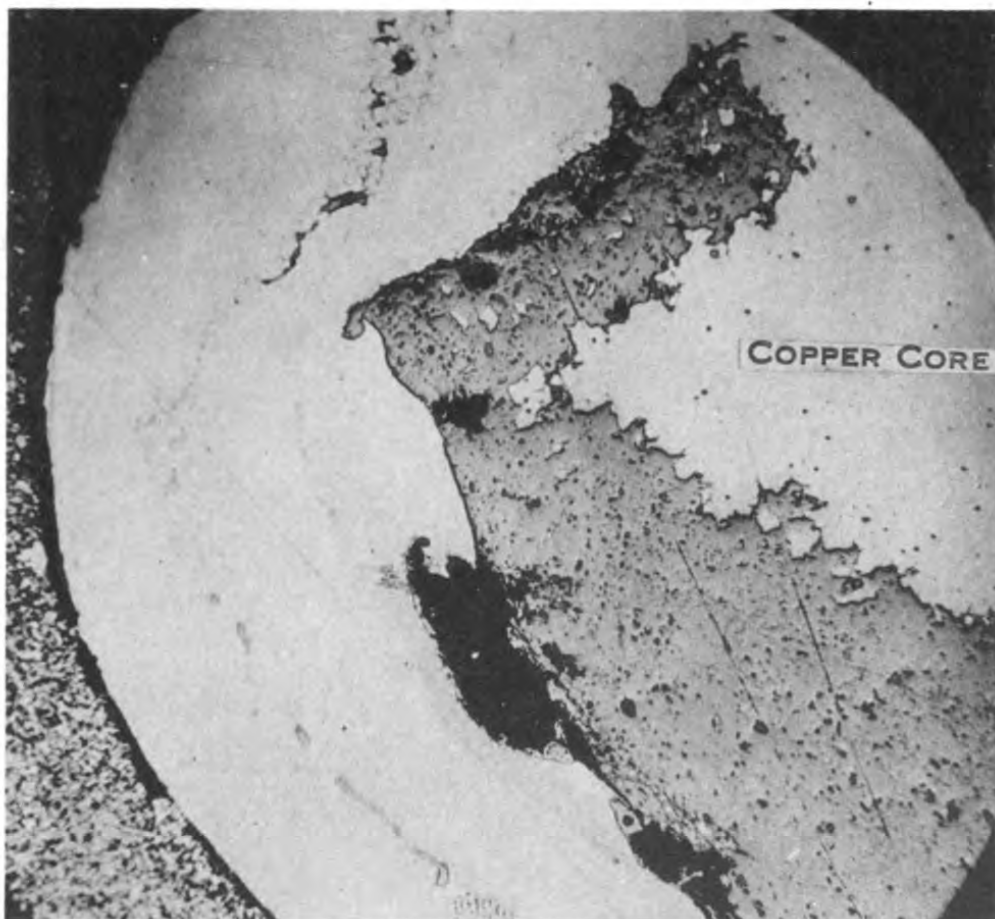
28. COIN 4; Fig. 1 at A x 60.  
Shows a hole in the silver coating below which  
is a crater of carbonate, then a layer of copper  
oxide and finally the bright metallic copper below.



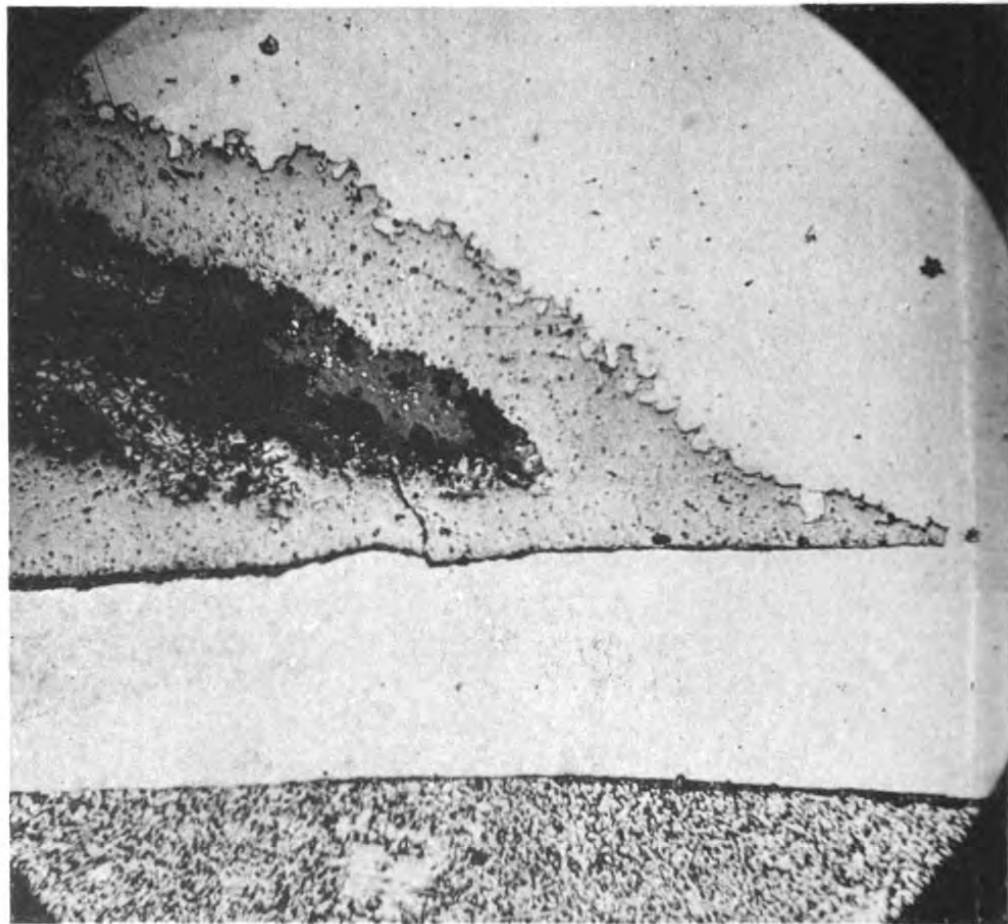
29. COIN 4;

Fig. 2 at B x 60.

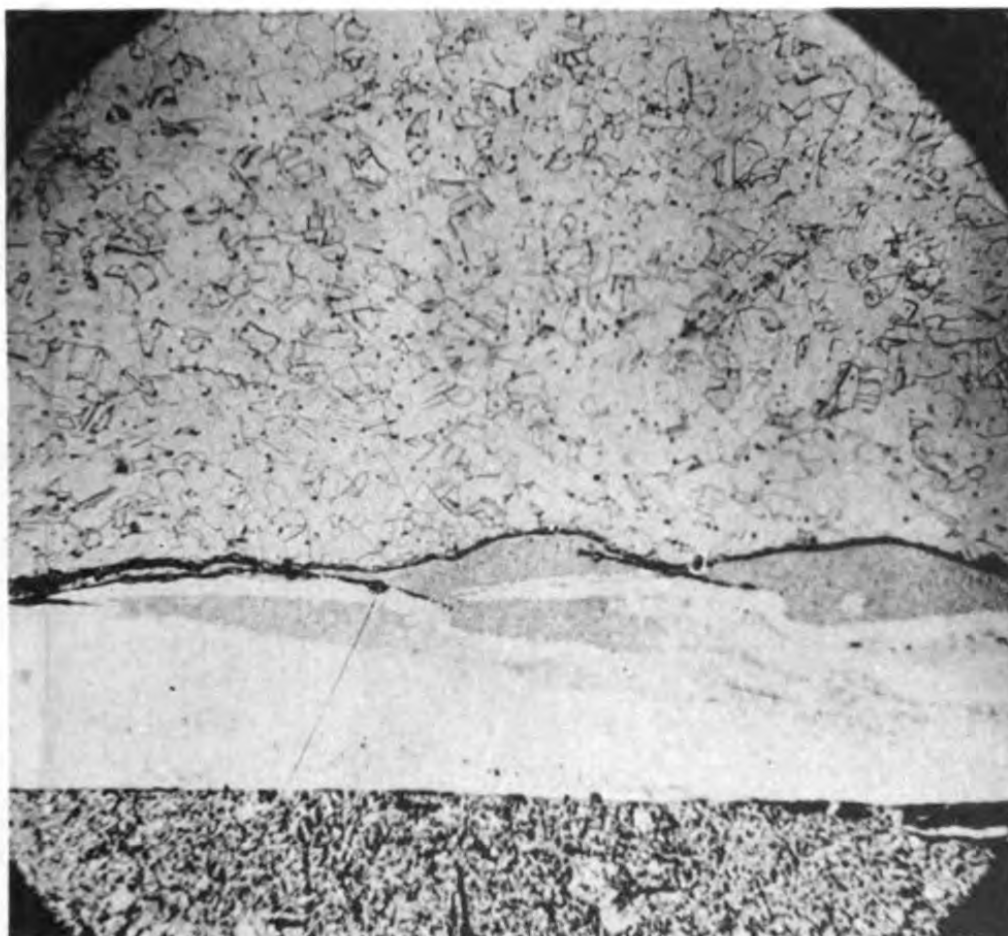
Shows the copper core on the left separated by a thin layer of oxide from the coating of silver which is in two layers separated by an irregular film of eutectic with some oxide (or flux?).



30. COIN 4; Fig. 3 at D x 60.  
Similar, but showing a very thick patch of copper  
oxide between the coating and the copper core.



31. COIN 4; Fig. 4 at C x 60.  
Shows the silver coating below separated from the  
copper core above by a wedge-shaped mass of  
copper oxide and carbonate (black).



32. COIN 4;

Fig. 5 at E x 60.

On etching, the silver coating was found to contain irregular bands of the eutectic. The inner surface of the silver coating is flaky and has irregular patches of the eutectic.

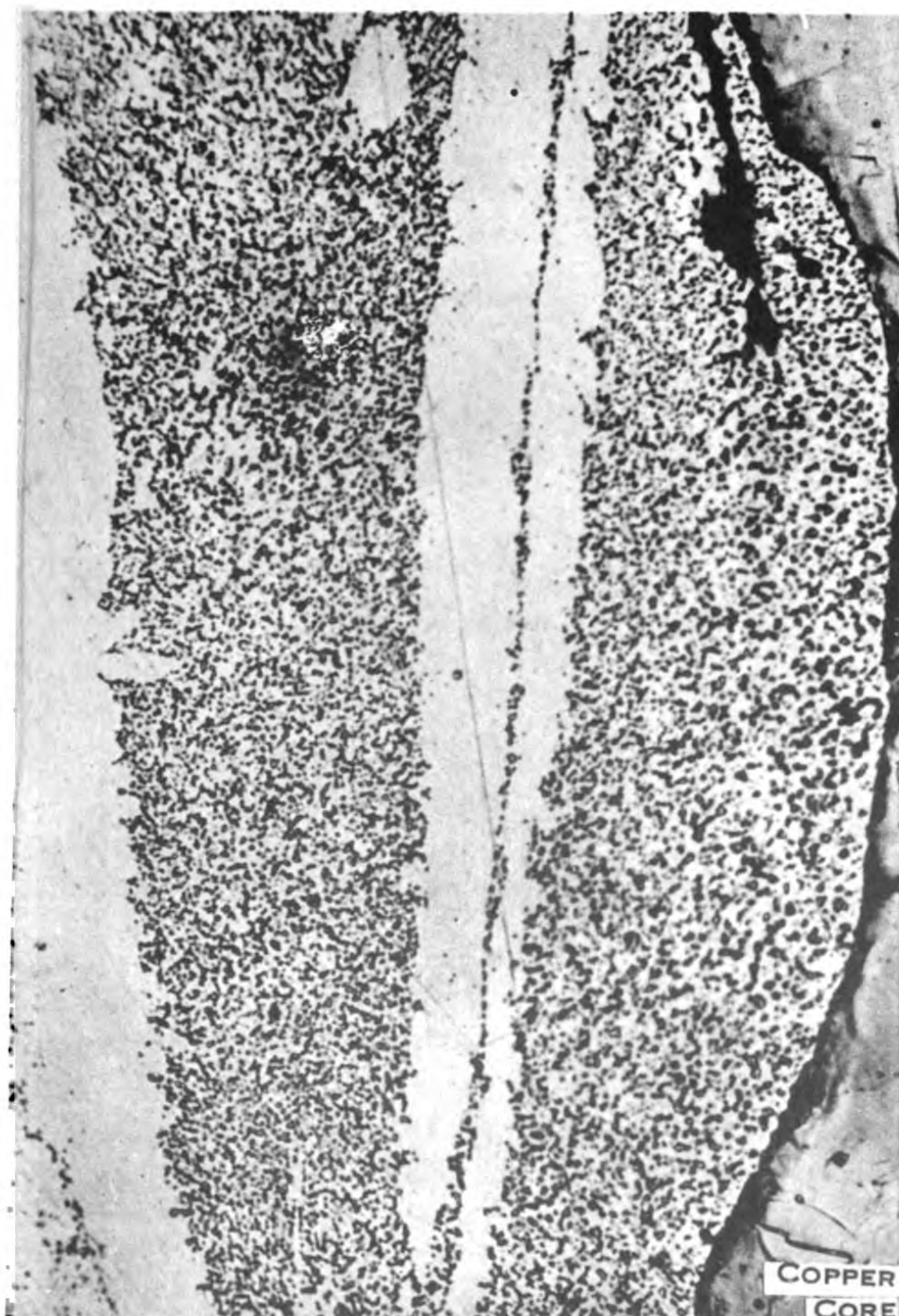


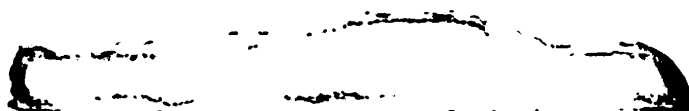
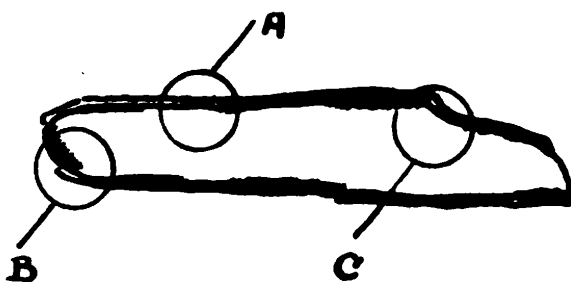


33. COIN 4; Fig. 6 at F x 60 (above). Shows corrosion of the copper core. The silver coating at the right is in two layers joined by a band of eutectic.

34. COIN 4; Fig. 7 x 500 (on opposite page). Shows the structure of coating near E. The eutectic surrounds an inner band of silver.





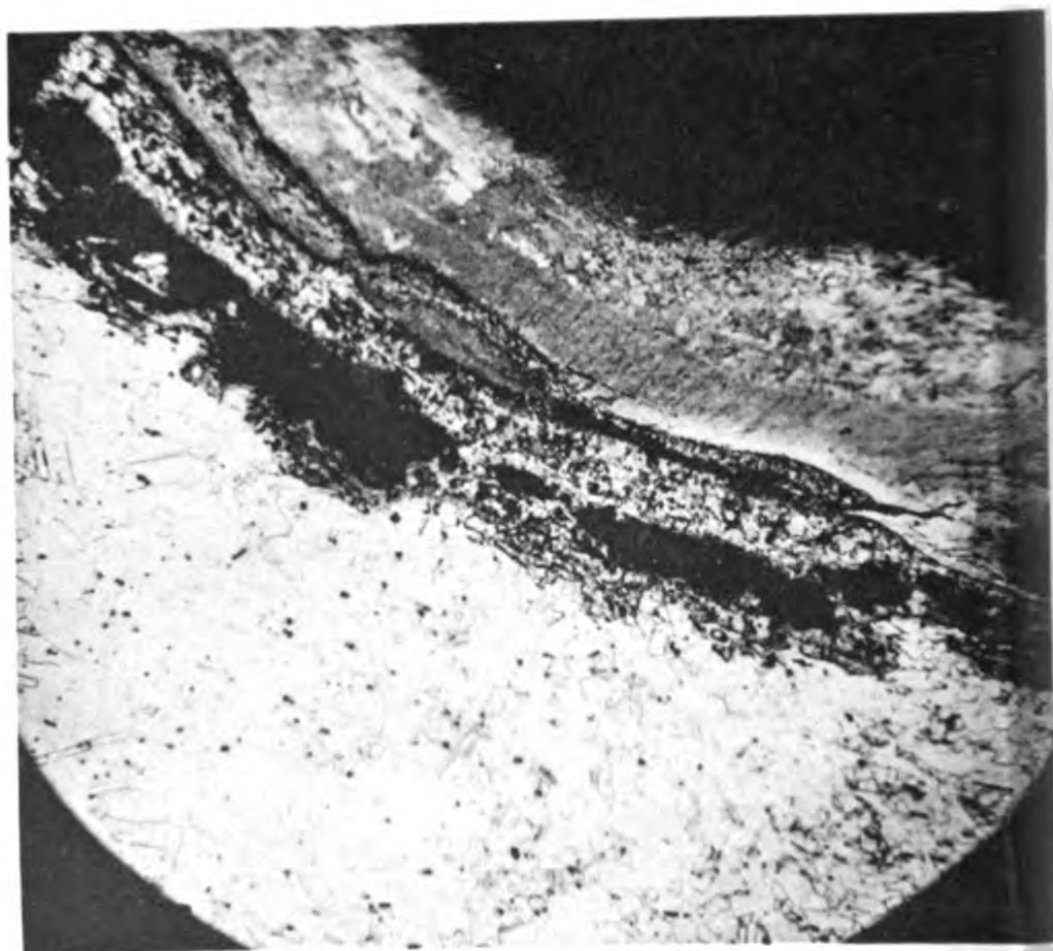


**35. COIN 5; Croton, Bruttium, Italy. Didrachm about 400 B. C. *Obv.* Tripod. *Rev.* Eagle to left. Edges badly corroded. No visible laps or folds. Edge worn below silver for most part. The copper is badly corroded below the silver coating in many places. Under the microscope the coating varies considerably in structure, in places showing at least four layers.**

**CONCLUSION.** The above structures would seem to indicate that the silver coating was made from sheet and attached to the copper disc by silver-solder. As in other specimens the irregularity of the eutectic areas might indicate that no solder had been used, and that the method was that of heating in close contact (Sheffield Plate Method). The fact that in places the silver occurs in two layers joined by the eutectic alloy points to the use of silver-solder.

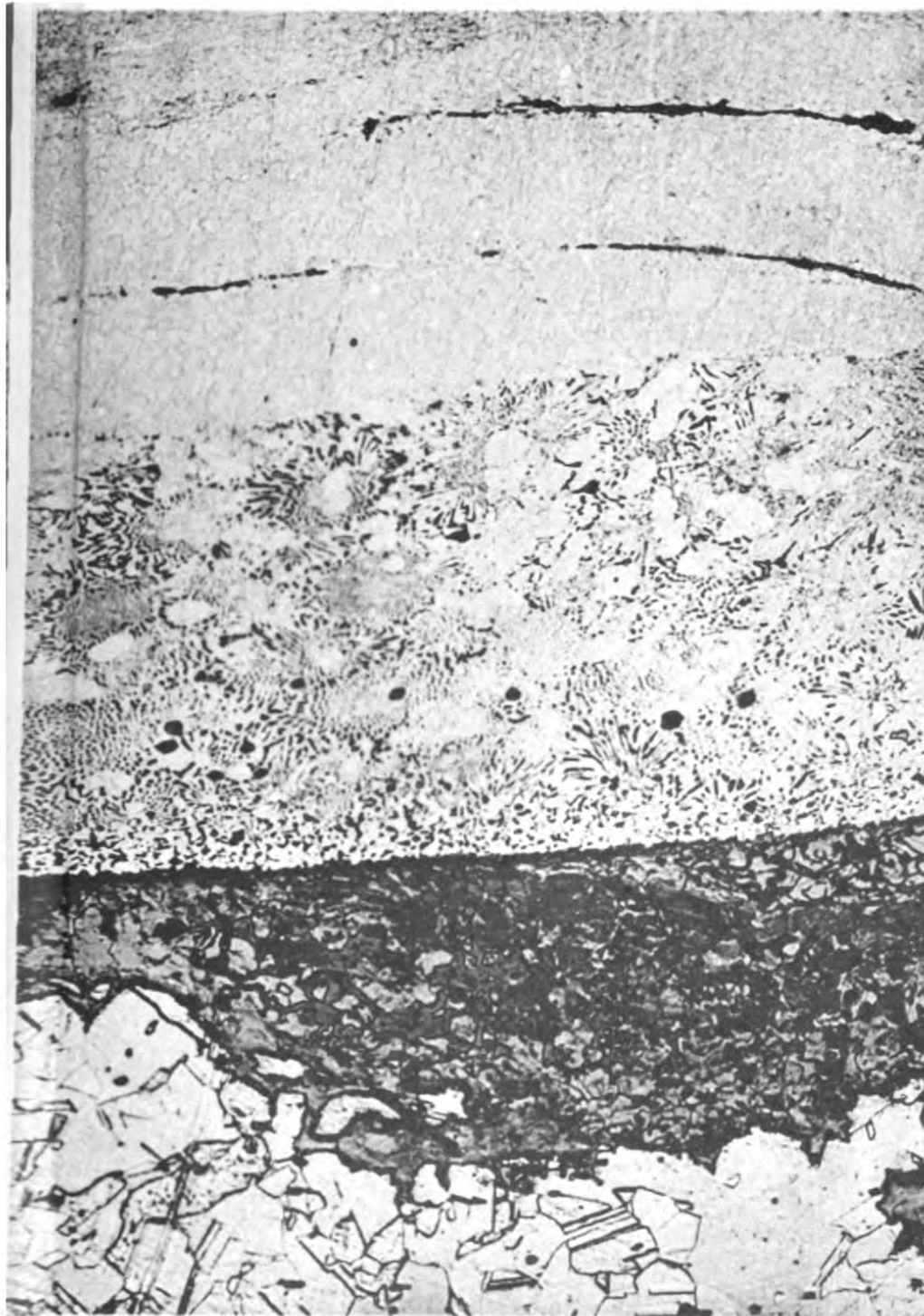


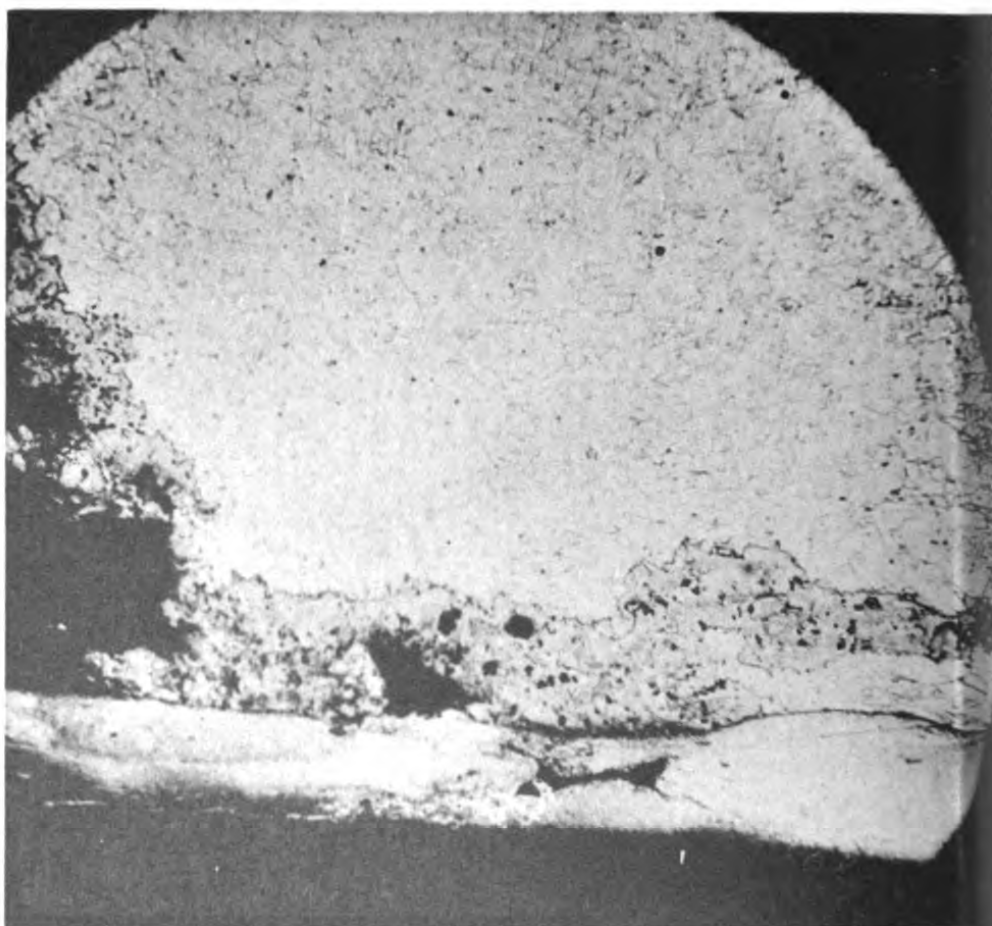
**36. COIN 5;**                      **Fig. 1 at A x 60.**  
Shows the copper core below. The silver coating  
is in two layers and is joined to the copper by a  
thick band of the copper silver eutectic.



37. COIN 5; Fig. 2 at C x 60 (above).  
Similar but the eutectic is separated from the copper core by a good deal of oxide and carbonate due to corrosion.

38. COIN 5; Fig. 3 x 200 (opposite).  
Shows the corroded copper core covered with the oxidation product, oxide, etc. The silver coating is in three layers separated by discontinuous films of oxide. The eutectic contains dendrites of silver diffusing in from the silver coating.





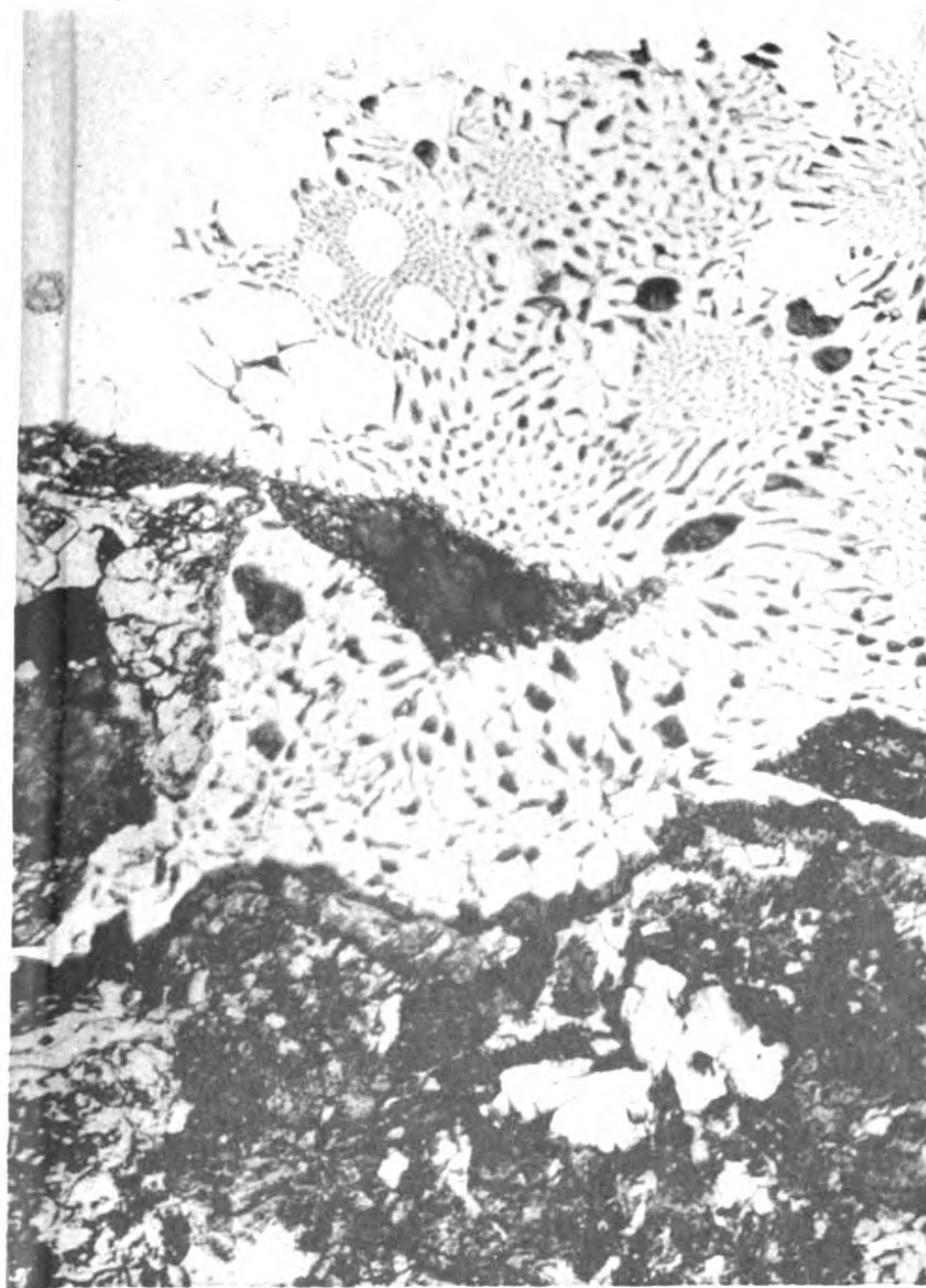
39. COIN 5; Fig. 4 at B x 60 (above).

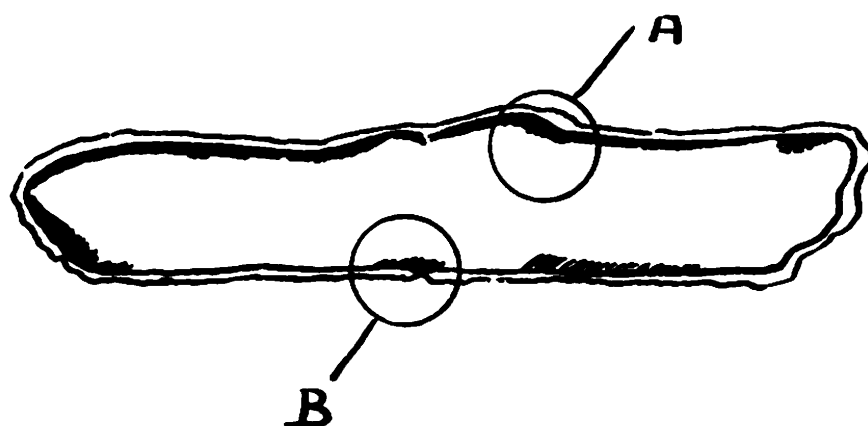
Shows the end of the section where corrosion is very deep. The coating consists of irregular areas of silver joined by a broken patch of eutectic.

40. COIN 5; Fig. 5 x 500 (opposite).

Shows an area where the eutectic has penetrated a crack in the copper core, which later through corrosion changed to oxide, etc.



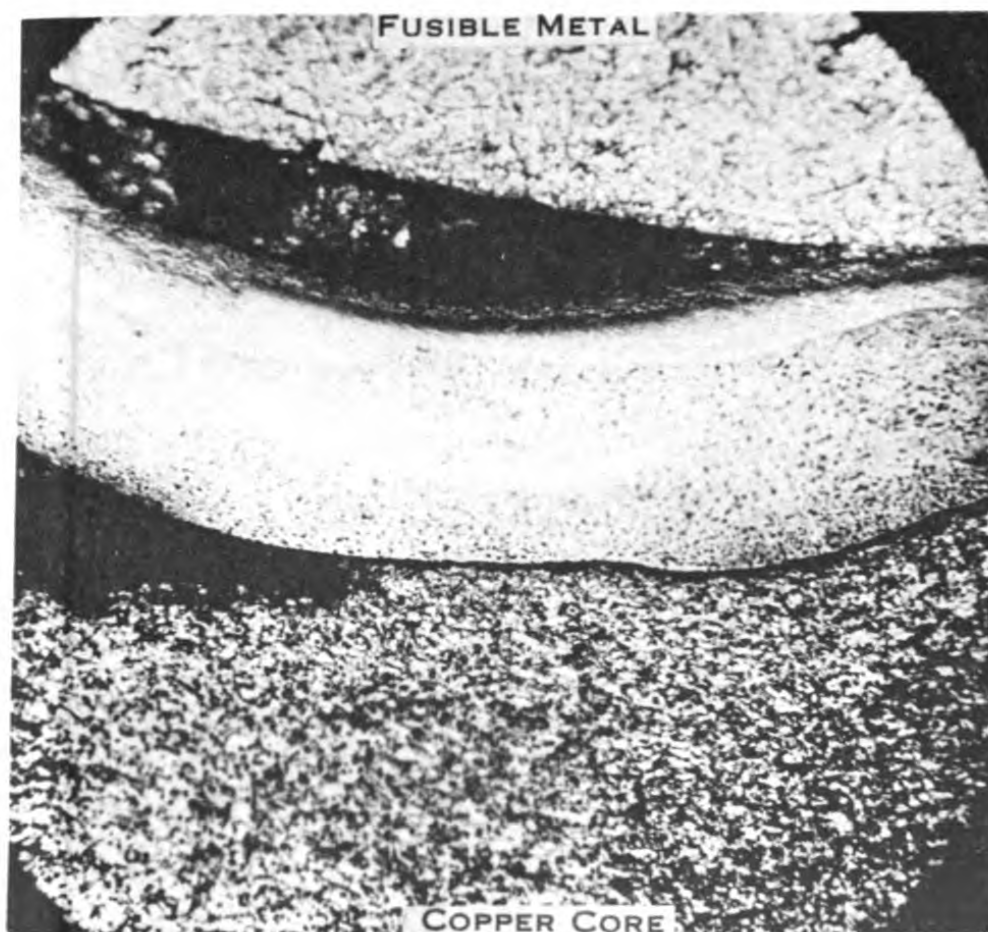




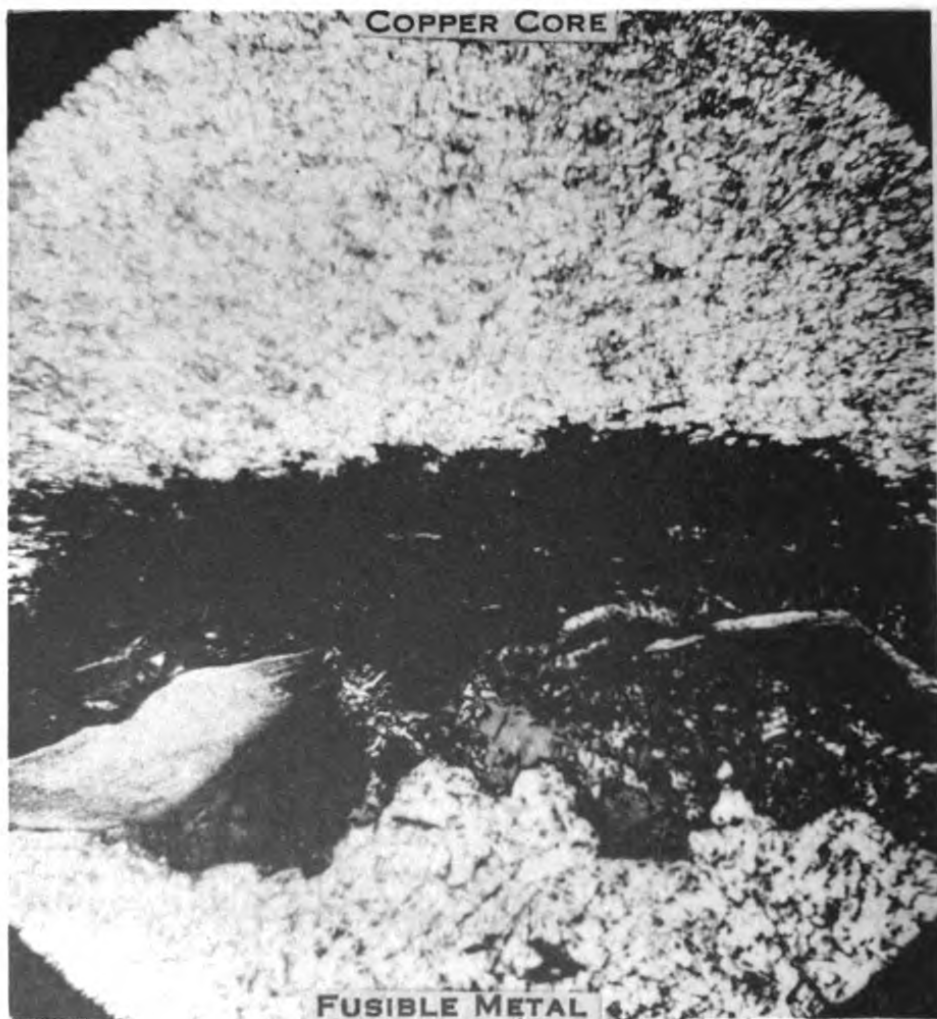
41. COIN 6; Tarentum, Italy. Didrachm about 380 B. C. *Obv.* Taras astride a dolphin. *Rev.* Horseman to left; inscription below. No laps are visible to the eye. Again there is a good deal of corrosion below the silver plating. The latter varies considerably in thickness and in one place is broken (at B, Fig. 2). One area shows two strips of silver embedded in the eutectic.

CONCLUSION. Here again we have a further example of the silver coating attached to the copper core by means of the copper-silver eutectic.



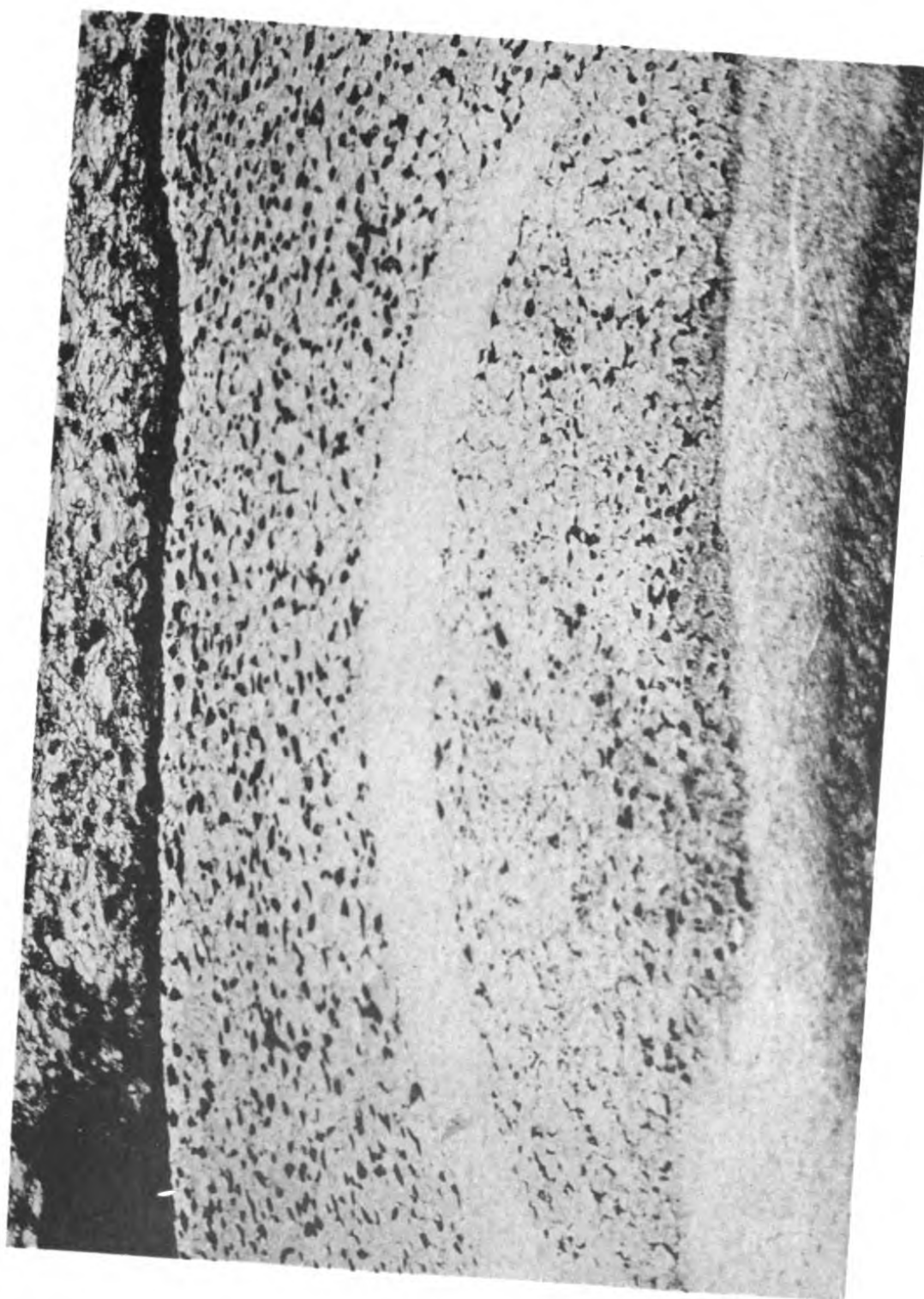


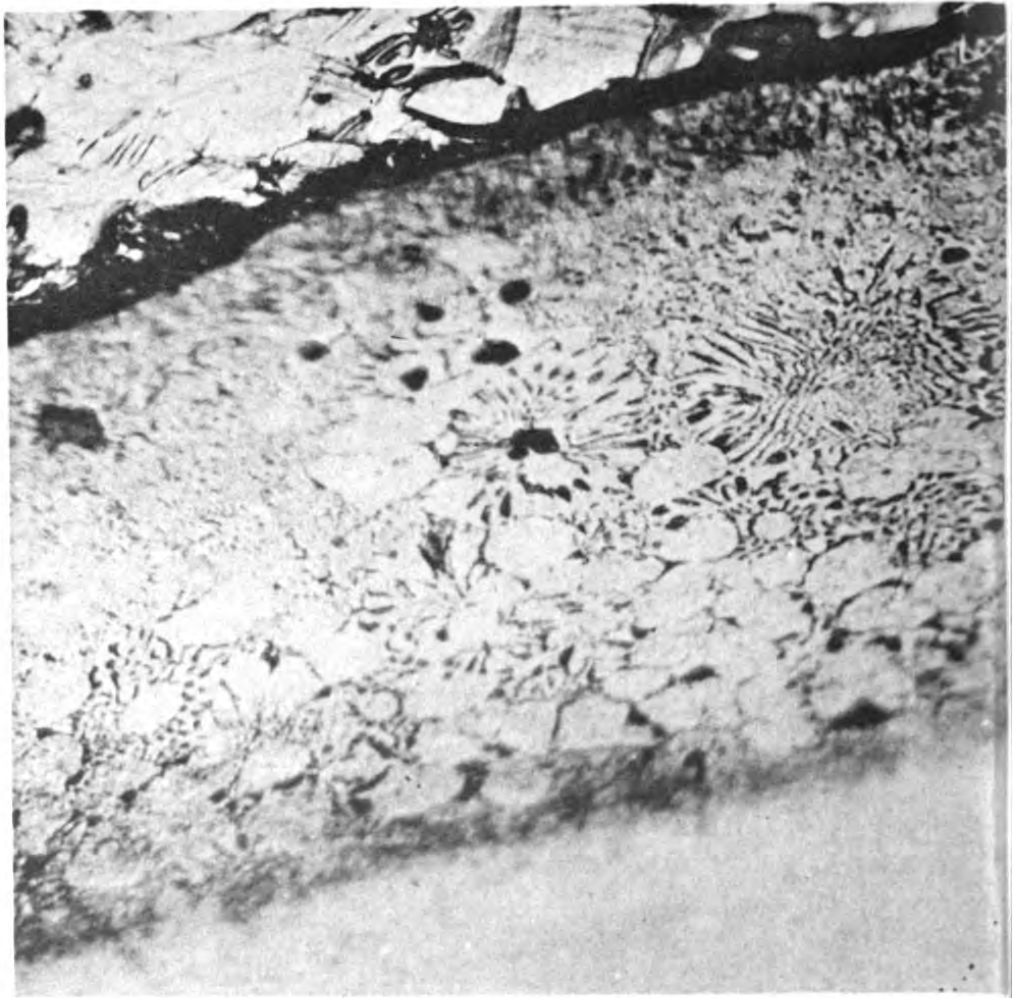
42. COIN 6; Fig. 1 at A x 60.  
Shows these two strips of silver embedded in the  
copper-silver eutectic.



43. COIN 6; Fig. 2 at B x 60 (above).  
A good example of the corrosion occurring at a hole in the silver coating.

44. COIN 6; Fig. 3 at A x 200 (opposite).  
Shows the details of structure of Fig. 1. The thin band of silver being completely surrounded by the eutectic.

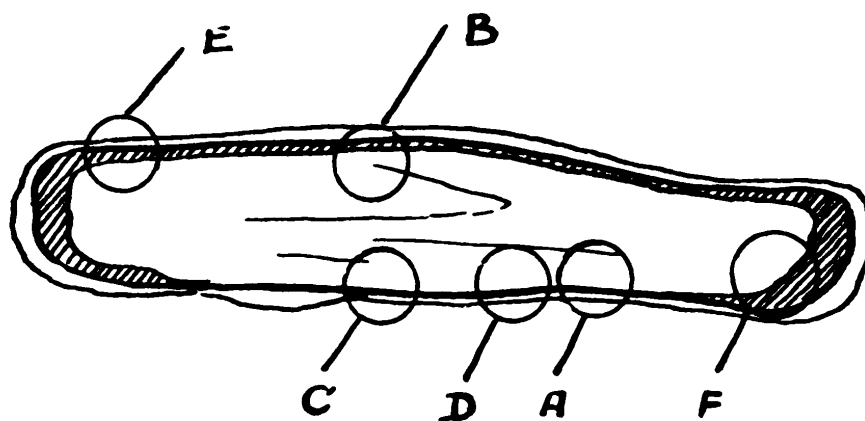




45. COIN 6; Fig. 4 x 500 (above).  
Shows dendrites of silver in the eutectic next to the silver caused by diffusion of the latter into the liquid alloy.

46. COIN 6; Fig. 5 x 500 (opposite).  
Interesting in that it shows the coarser particles of copper in the eutectic have changed to oxide due to corrosion.

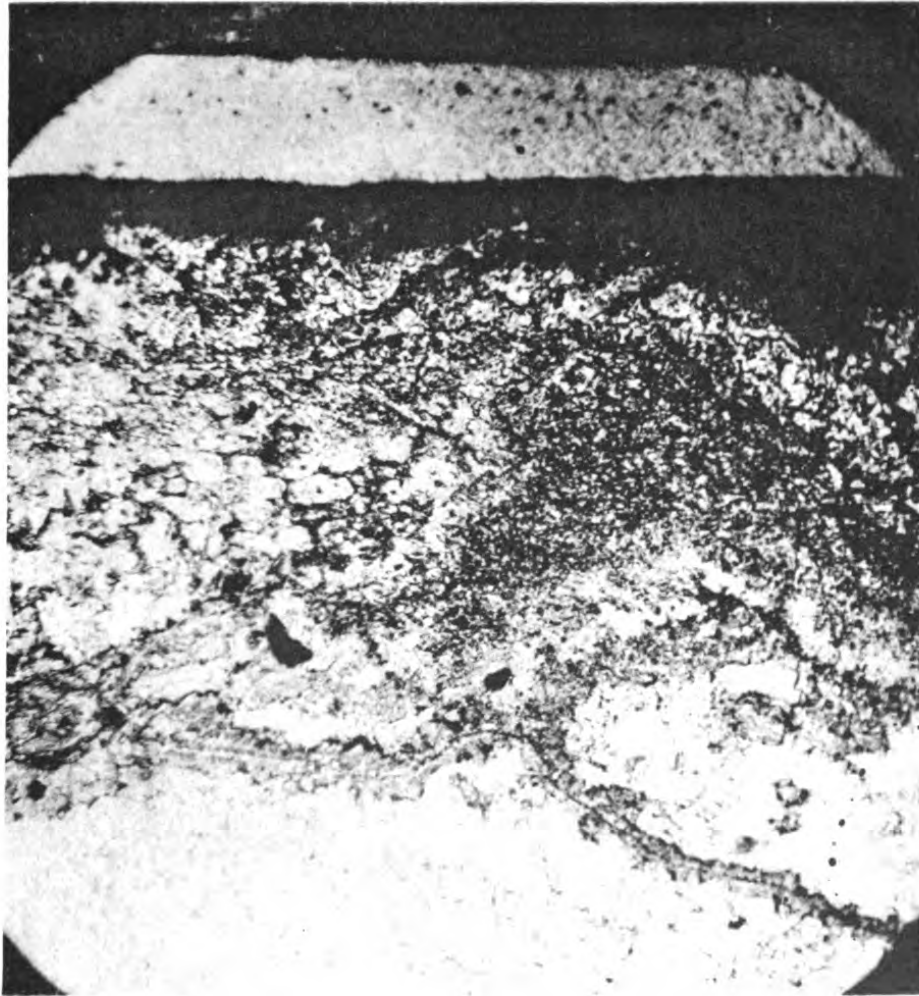




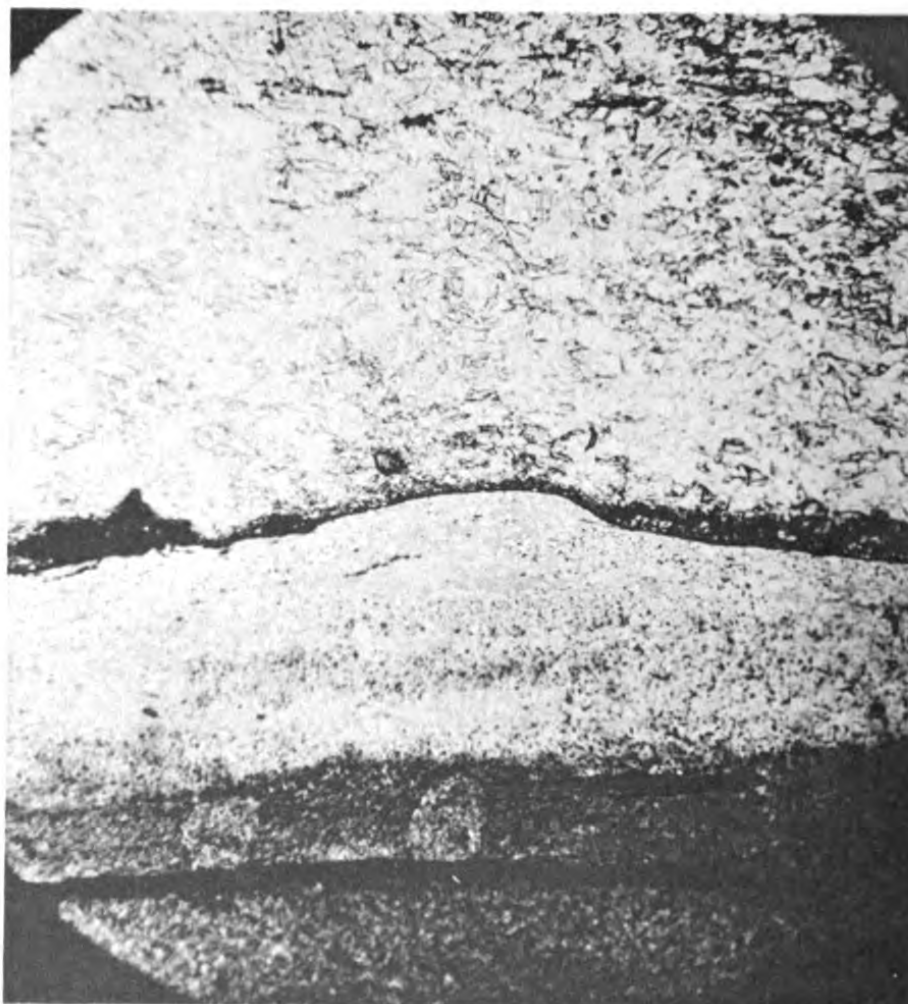
47. COIN 7 (0:13); Thebes, Boeotia. Middle of Fourth Century, B. C. *Obv.* Shield. *Rev.* Amphora. No lap seen. Two opposite portions of the edge corroded away while the rest of the coin appears fine. Under the microscope no join was found in the silver coating, but there is marked corrosion of the copper core. The silver coating contains more than 72% silver and consists for the most part of grains and dendrites of silver surrounded by the eutectic. The core shows several cracks and etches with a streaky appearance characteristic of impure, improperly refined copper.

CONCLUSION. Just why this coating should show marked irregularity in composition is not evident, unless it is due to segregation by dipping the copper disc in a rich silver-copper alloy at a temperature slightly above its melting point. The alternative would be that the silver coating was attached as in the previous examples, but that the temperature was higher and by diffusion a pasty coating of a silver-rich alloy was formed.



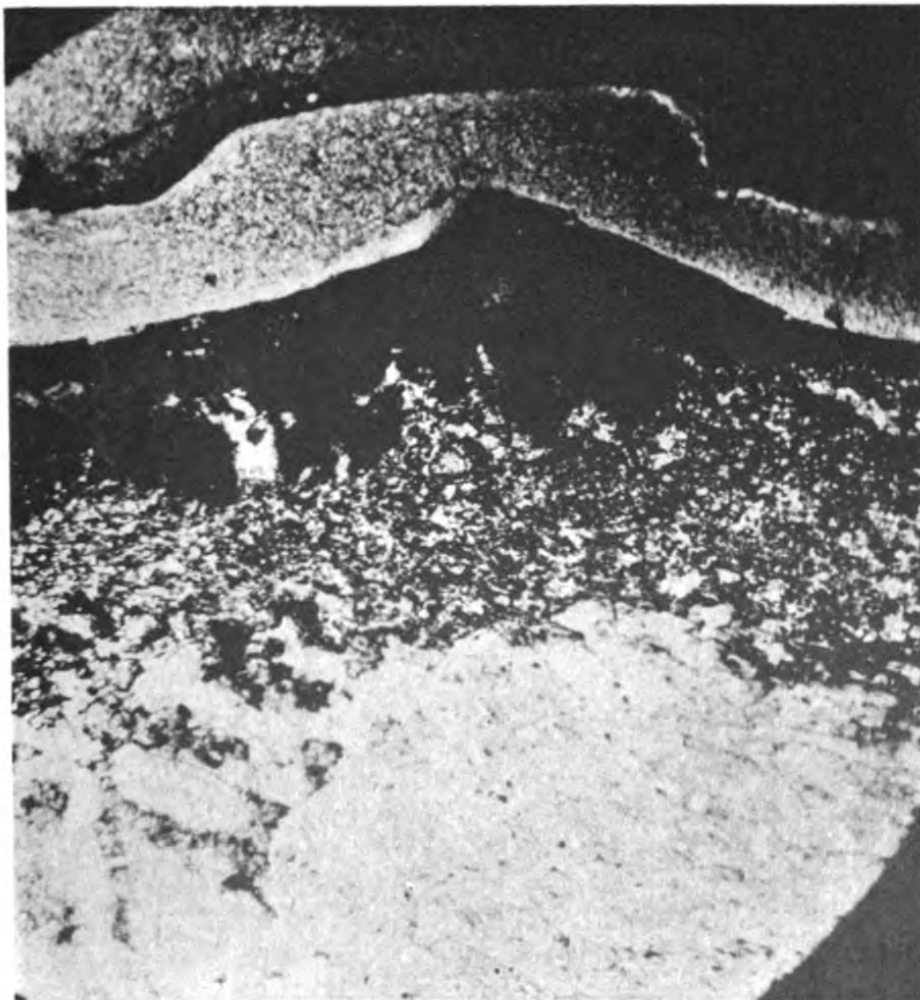


48. COIN 7 (0.13); Fig. 1 x 60 at B.  
Shows the silver coating above; below it is a layer of carbonate and then oxide with some carbonate. The copper core below is now clear and shows its normal grain-structure; it is cracked and the fissure is filled with oxide.

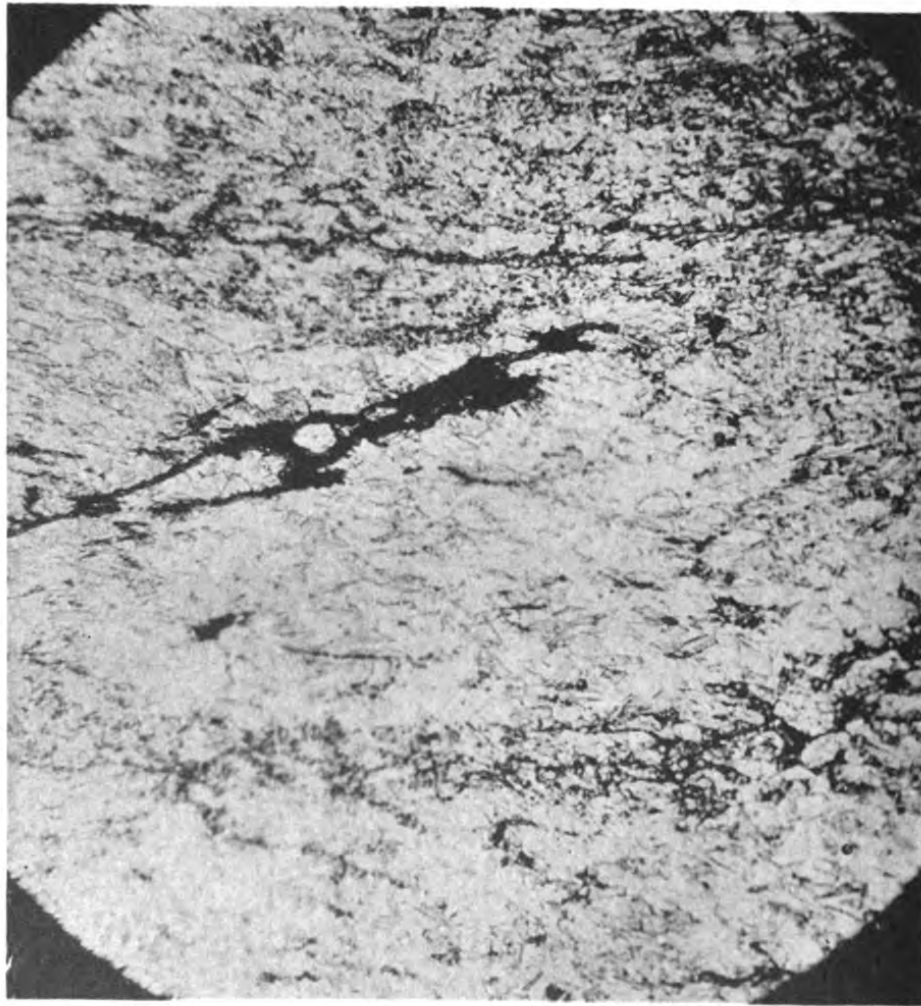


49. COIN 7 (0.13); Fig. 2 x 60 at D.  
Shows an area with only a small amount of corrosion of the copper core. Here the silver coating is thick and even at this low magnification is seen to be an alloy of copper and silver.



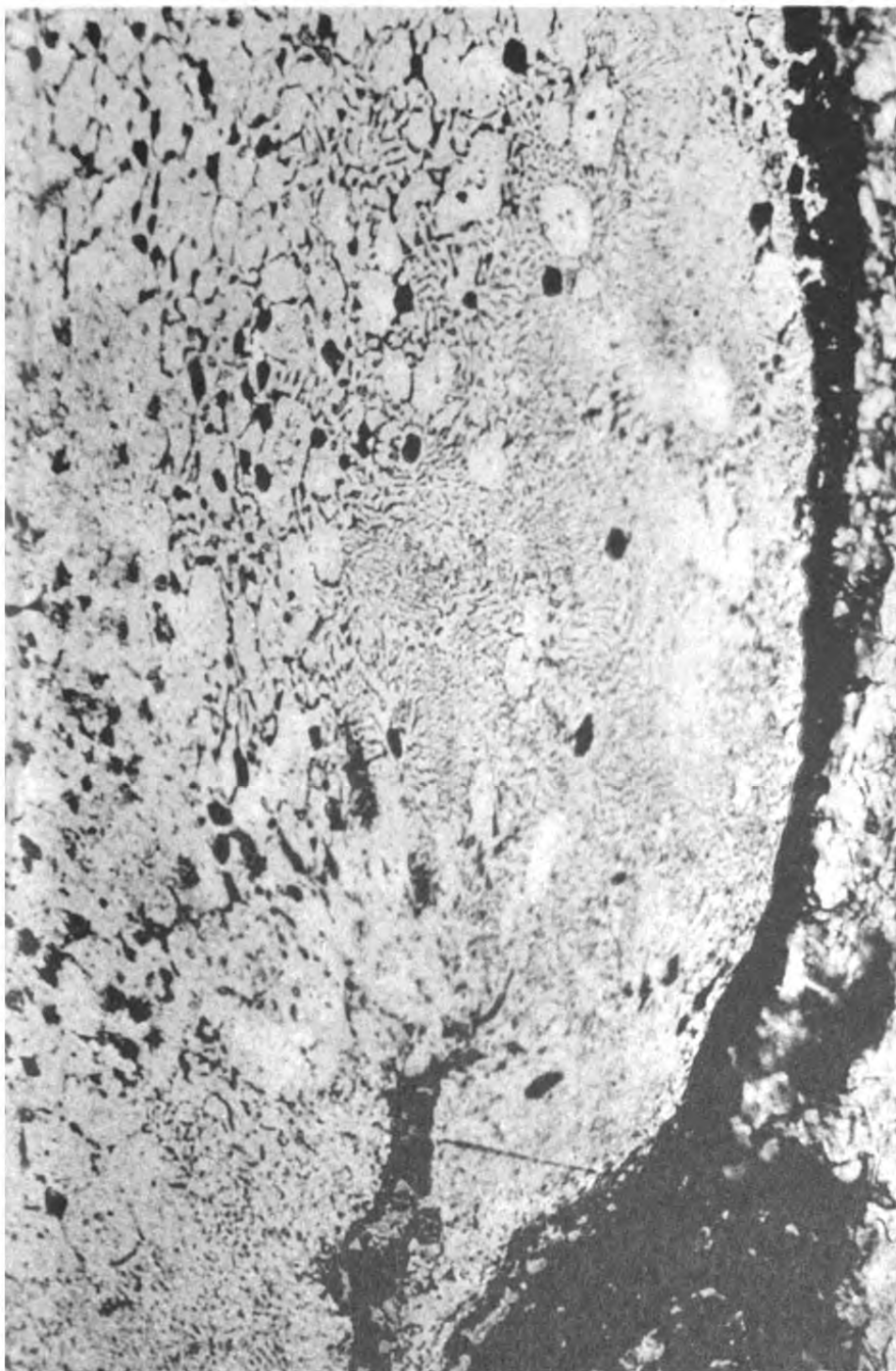


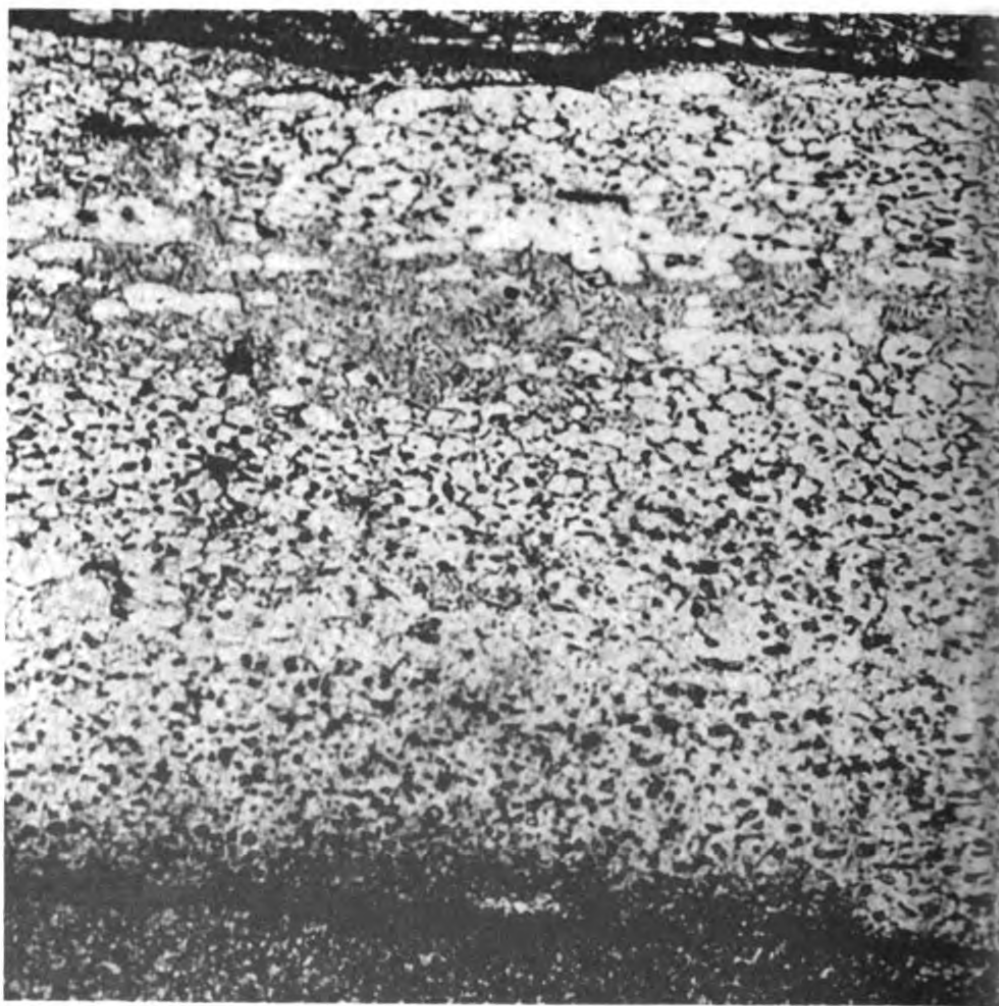
50. COIN 7 (0.13); Fig. 3 x 60 at E.  
Shows another area of the badly corroded upper  
surface, with carbonate below the silver alloy  
coating.



51. COIN 7 (0.13); Fig. 4 x 60 at F (above). Note the distinct banding with an irregular fissure near the center. Such a structure might well result from hammering out a poor copper casting.

52. COIN 7 (0.13); Fig. 5 x 500 (opposite). Shows some corrosion of the core. The coating next the core is approximately the eutectic alloy. Towards the outside, the increasing number of silver grains shows it richer in silver.



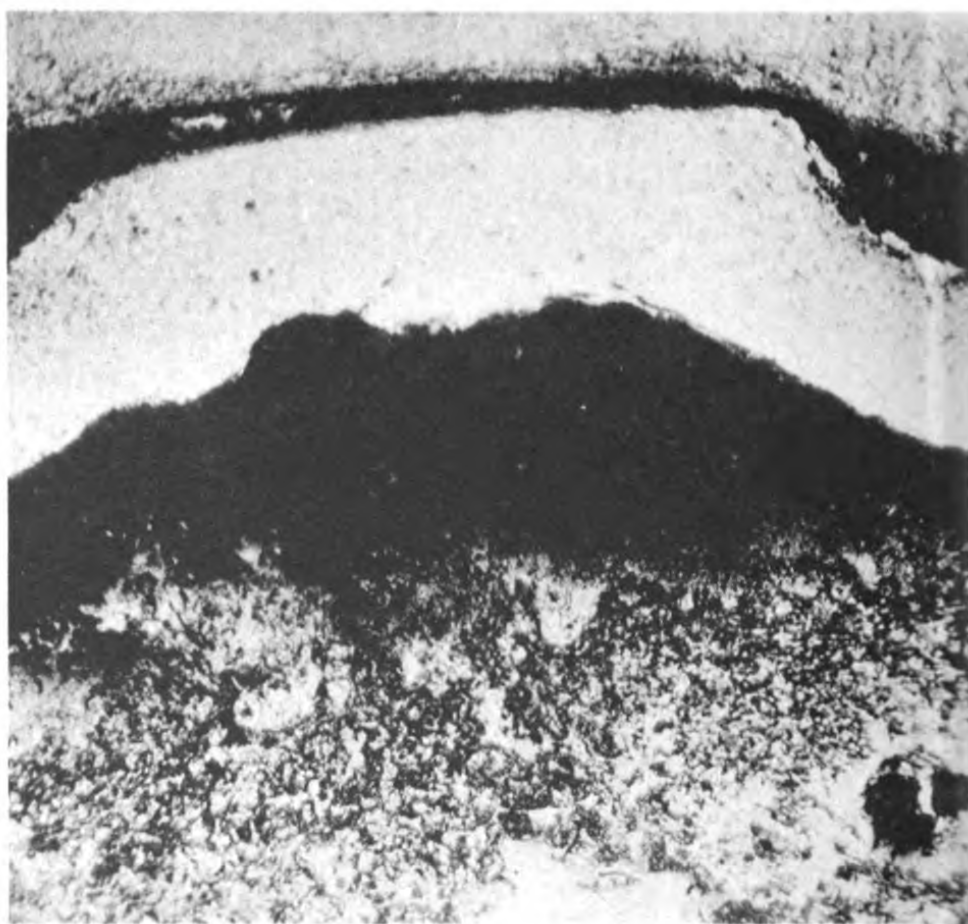


**53.** COIN 7 (0.13); Fig. 6 x 250 (above). Shows the copper core above with no oxidation. The coating is a mixture of grains of silver and copper or silver eutectic which is far from uniform. It should be approximately 85 to 90% silver.

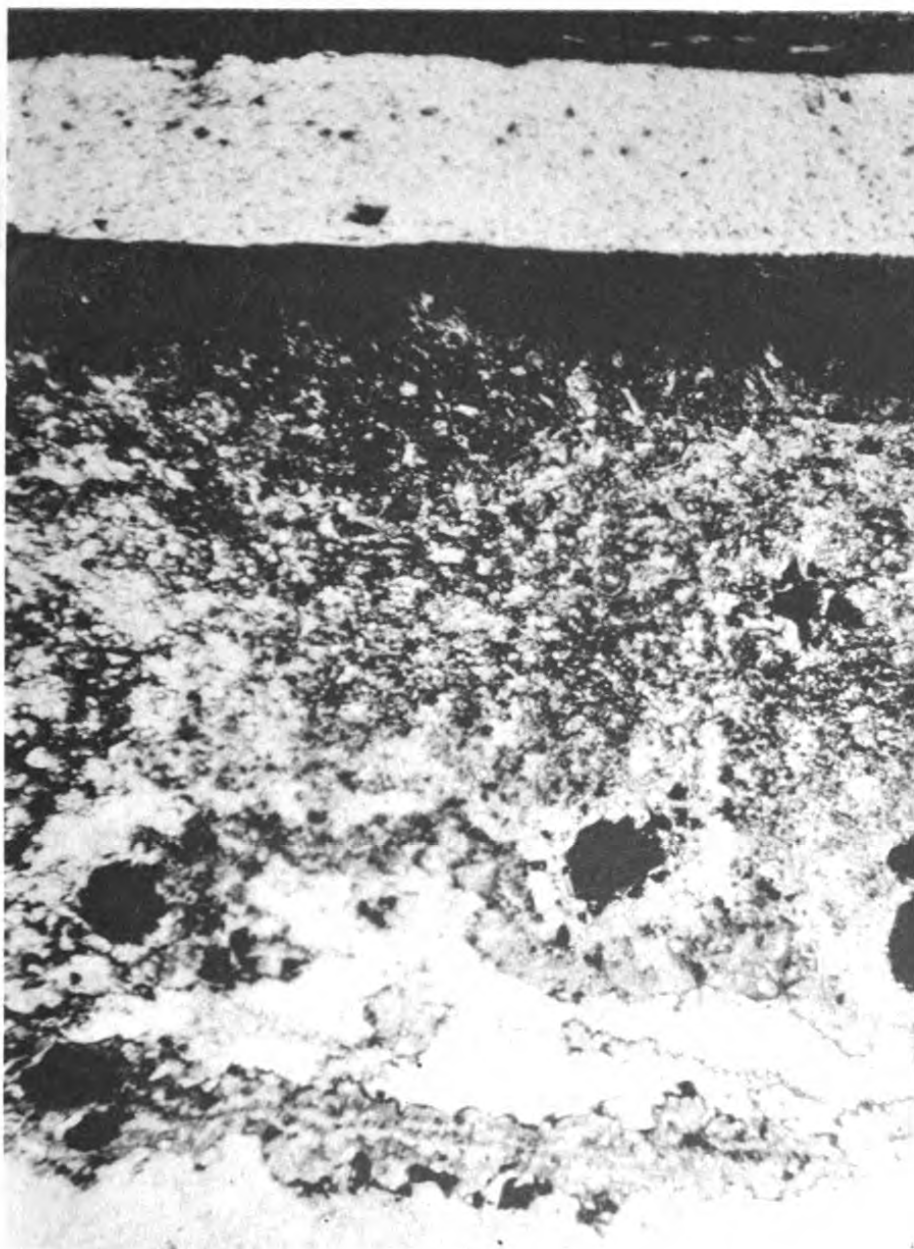
**54.** COIN 7 (0.13); Fig. 7 x 500 (opposite). Shows the coating richer in silver next the core followed by a band of eutectic (72% silver). At the bottom grains of silver appear once more.

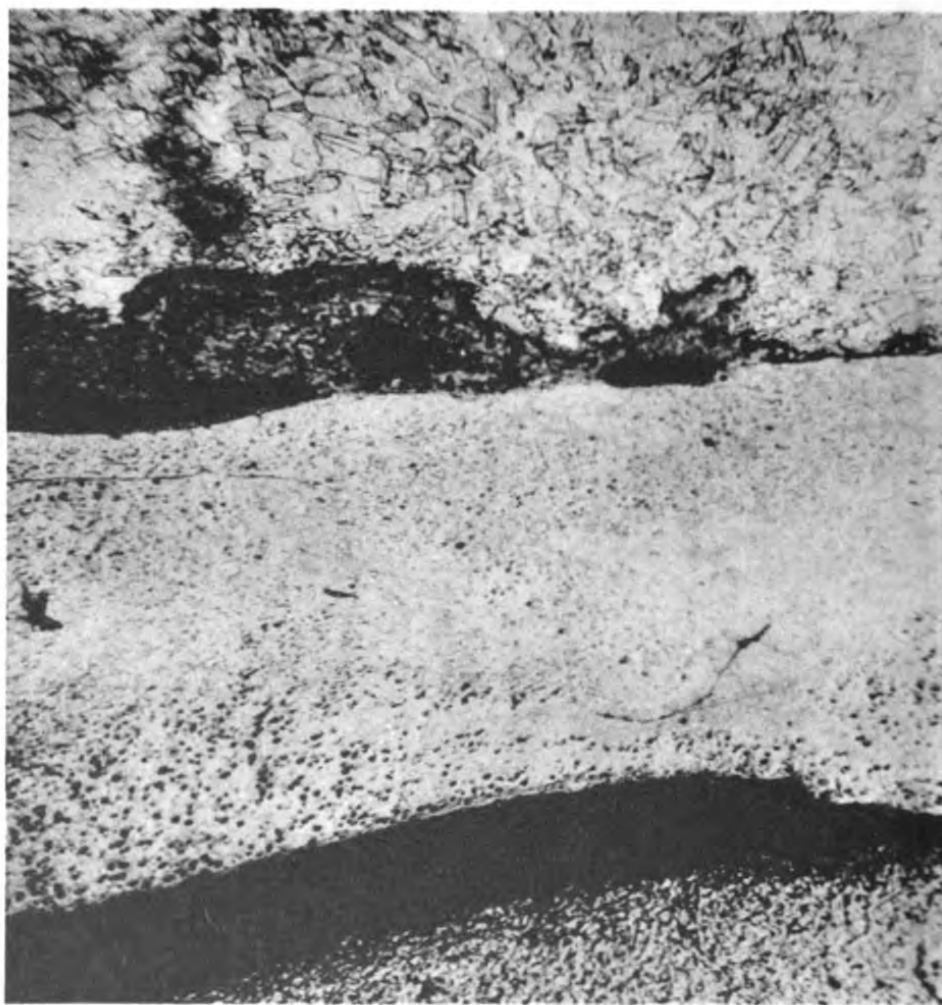






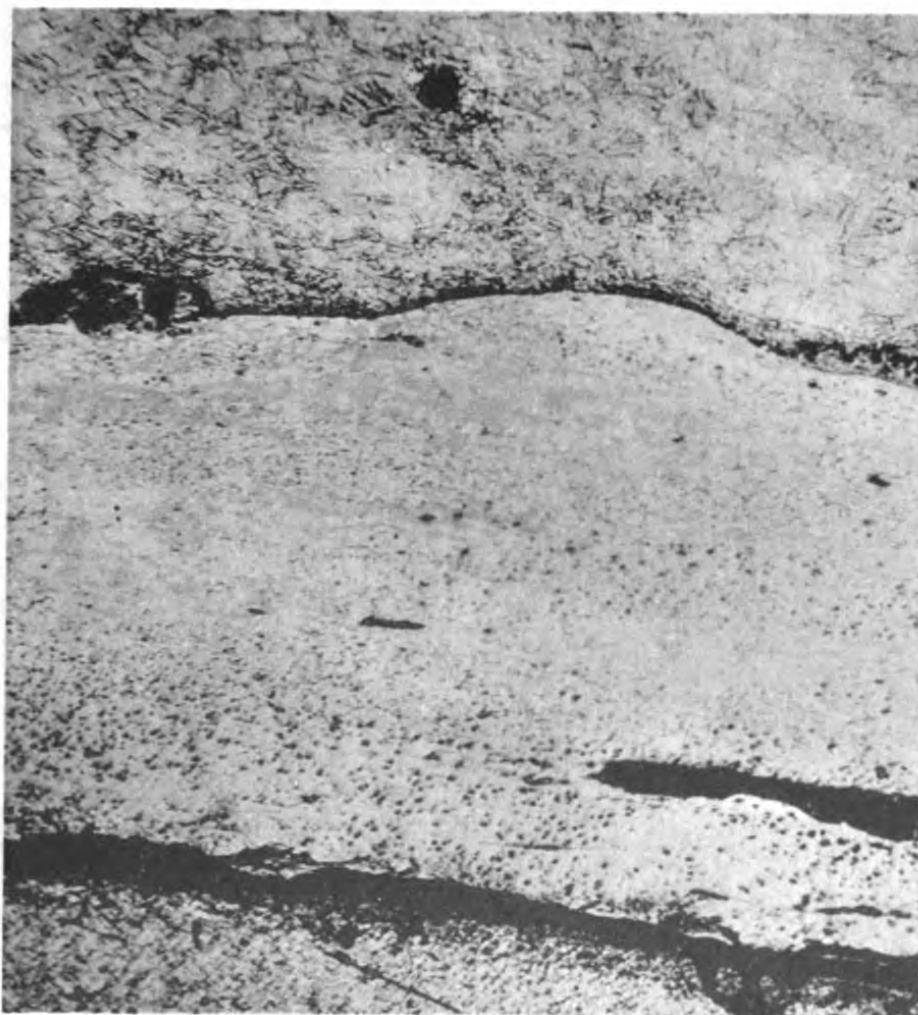
**55-6.** COIN 7 (0.13); Fig. 8 at E corresponding to Fig. 3 and Fig. 9 at B corresponding to Fig. 1 show the coating of the eutectic alloy above and the corroded copper core below. The section was filed deeper, polished once more and the following micrographs taken at a magnification of 100 diameters.





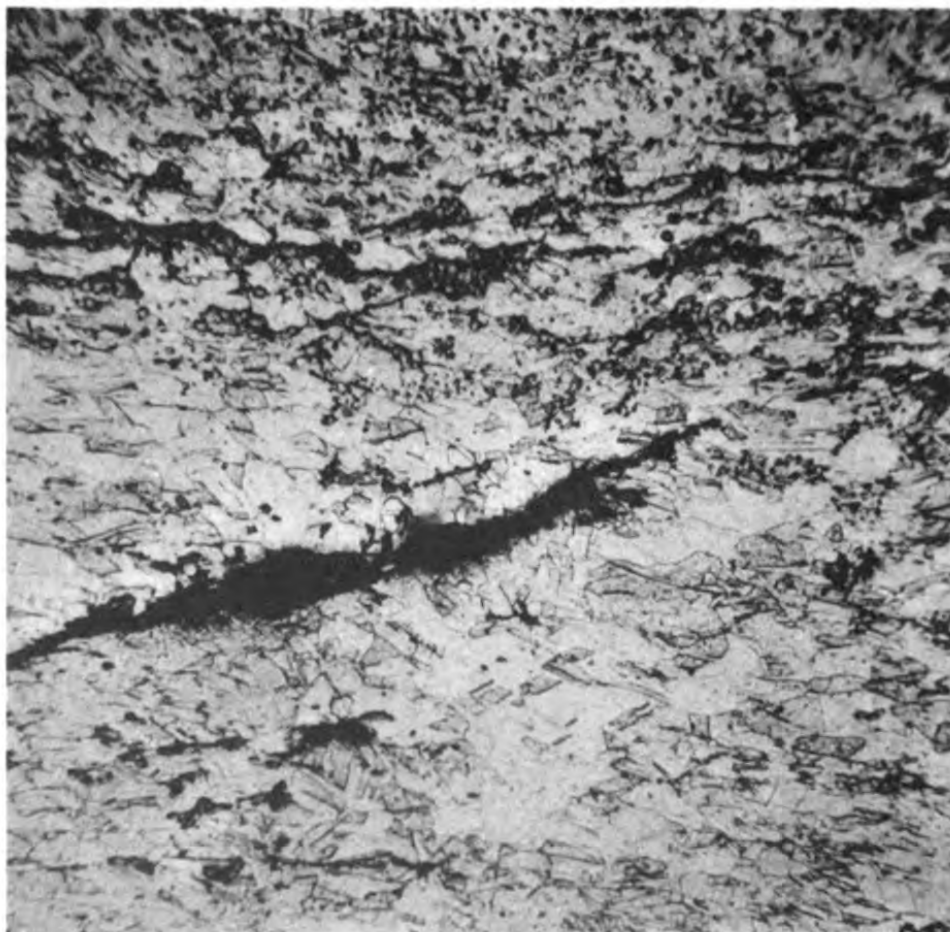
57. COIN 7 (0:13);      Fig. 10 x 100 at C.  
Shows the coating to consist of silver crystals and  
eutectic, i. e., it contains more than 72% of silver.



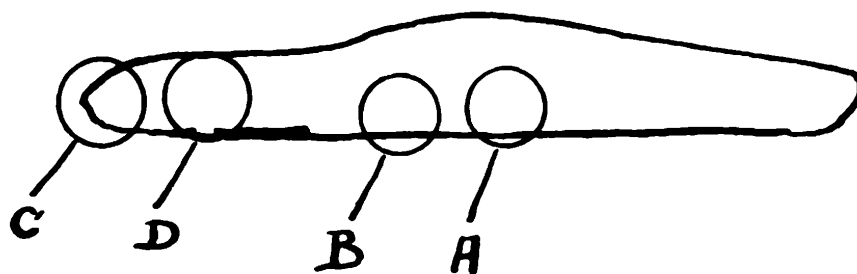


58. COIN 7 (0:13);  
Similar to Fig. 10.

Fig. 11 x 100 at D.

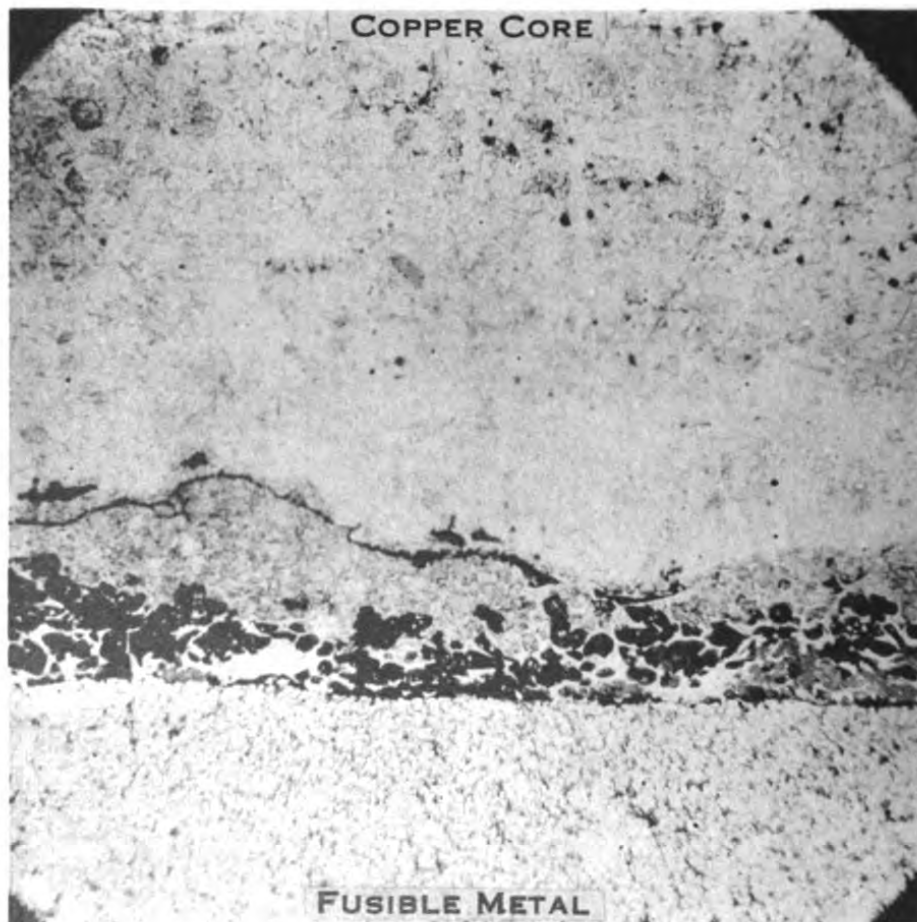


59. COIN 7 (0:13); Fig. 12 x 100 at F.  
An enlargement of Fig. 4 shows distorted copper grains due to cold work, with the crack in the center and much oxide above due to corrosion.

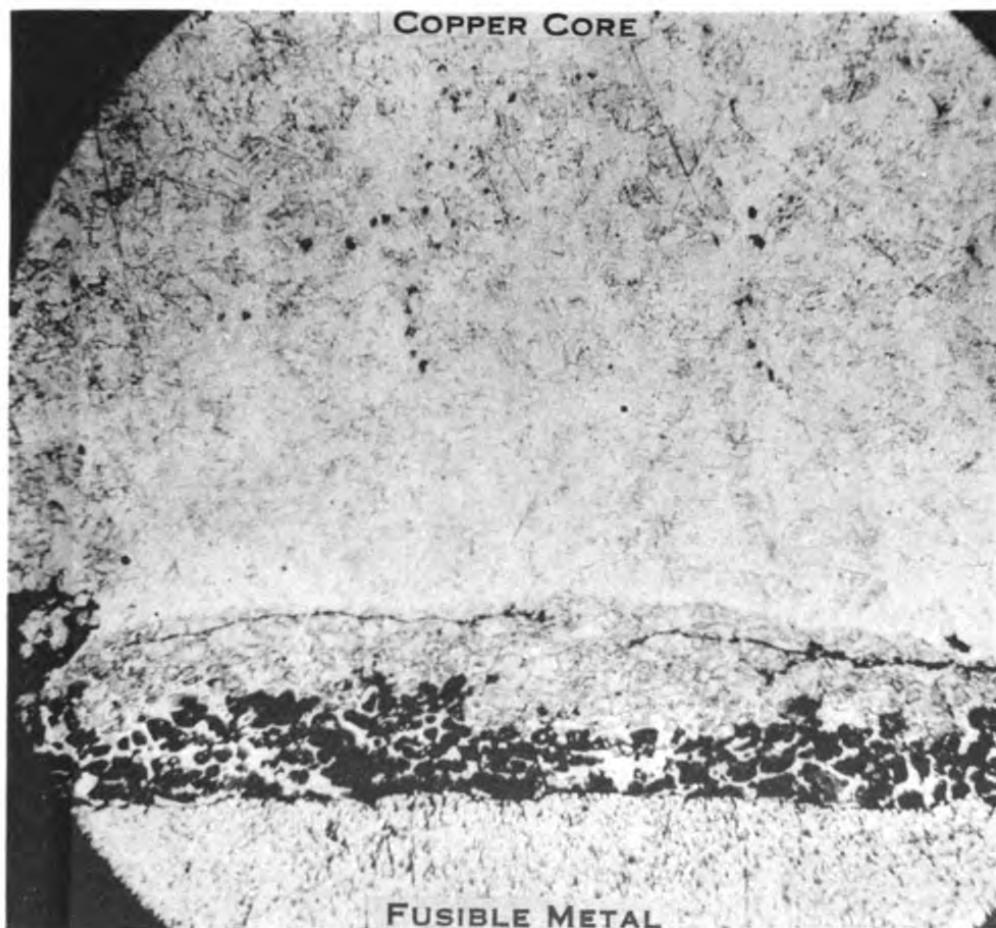


**60. COIN 8; Roman Republic. Family denarius. Lucius Manlius Torquatus. B. C. 99-94. B. M. C. Pl. 93: 11-12.** Resembles a base silver coin badly corroded. As polished, the cross section shows a corroded "silver" coating consisting for the most part of patches of the silver-copper eutectic surrounding grains of copper oxide. On etching this is brought out very markedly especially where the oxide has changed to carbonate.

**CONCLUSION.** This coin resembles No. 2 and may have been produced by dipping the copper disc in molten copper-silver eutectic or by sprinkling the powdered alloy (or even pure silver) on the copper base and heating so high that the powder melted and ran over the surface to form a cover.

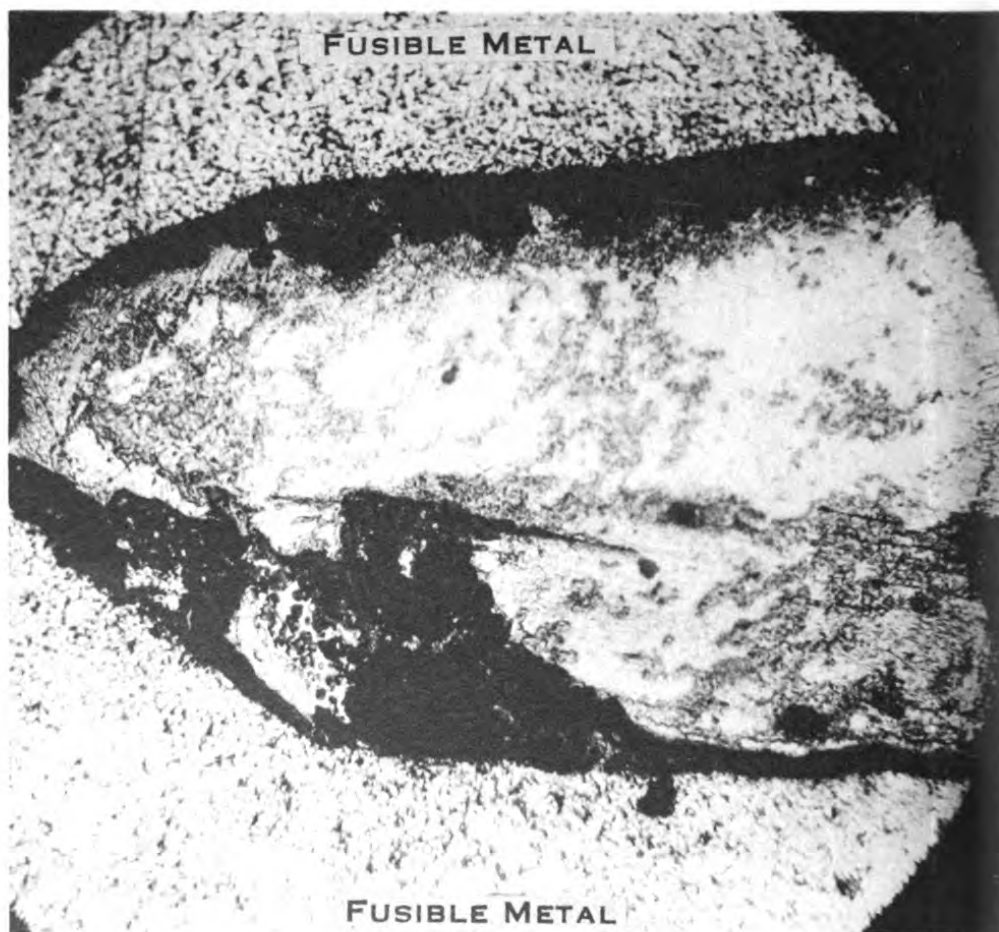


61. COIN 8; Fig. 1 x 60 at B.  
 Typical of this coin. The upper half is the copper core, the lower part the fusible metal mounting is medium. The dark-etching band consists of white patches of the copper-silver eutectic, black areas (holes) where the carbonate has etched out, while the intermediate grayish area is oxidized copper.

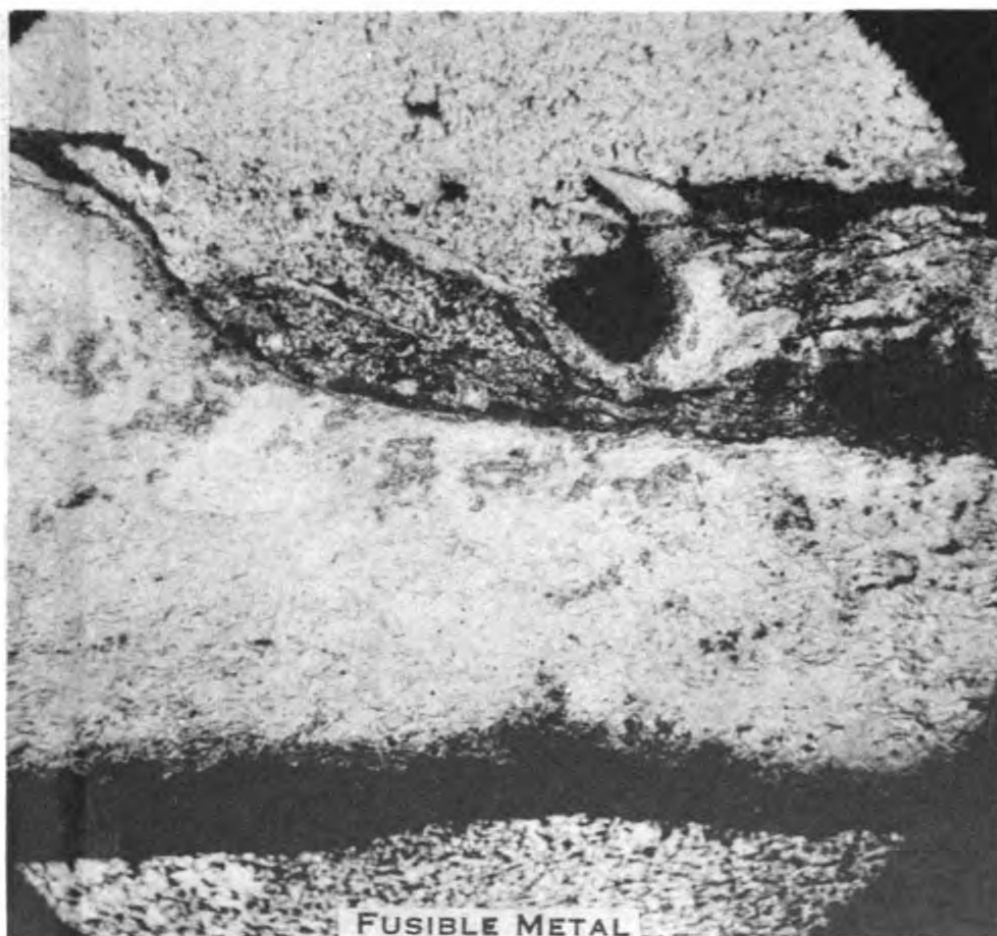


62. COIN 8;  
Similar to Fig. 1.

Fig. 2 x 60 at A.

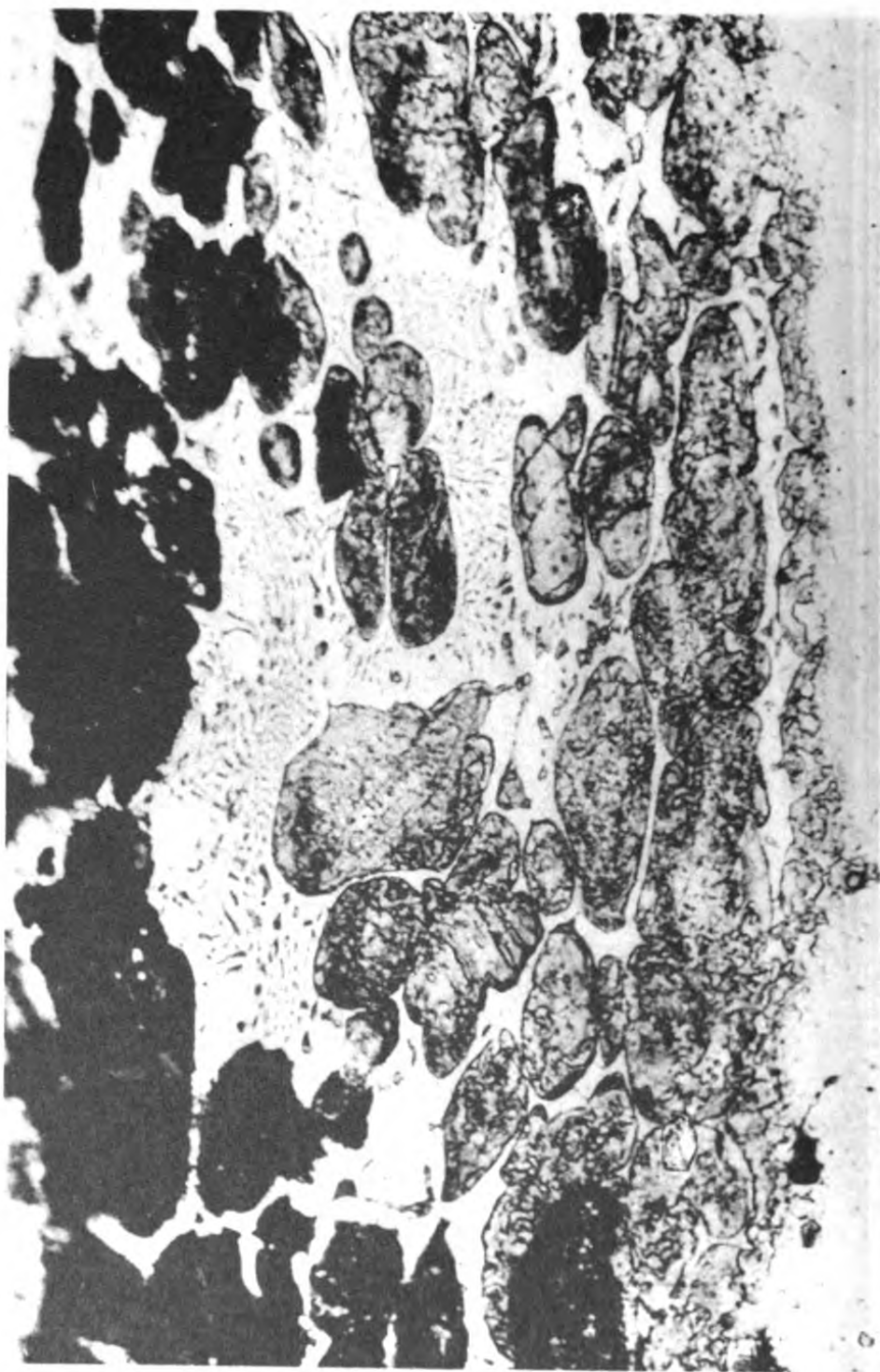


63. COIN 8; Fig. 3 x 60 at C.  
Shows only one small area on the lower left where any of the silver remains, the rest of the coating, being a mixture of oxide and carbonate, has etched out.

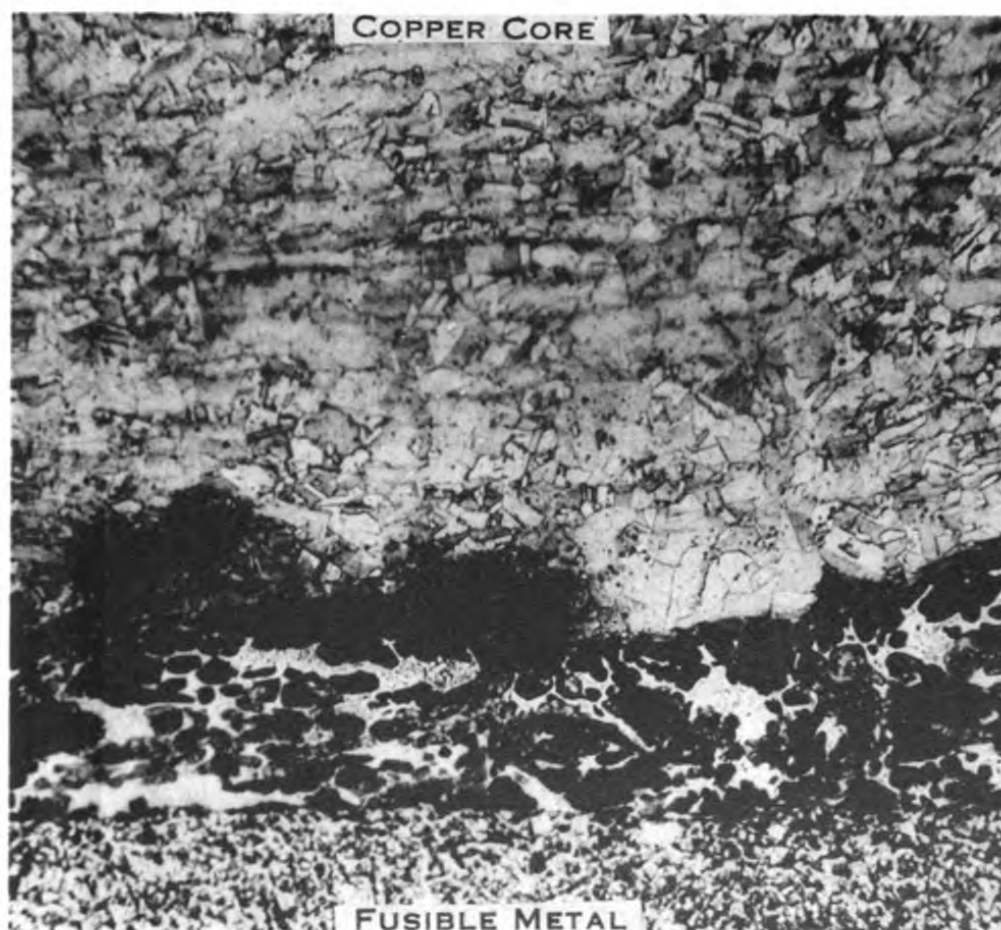


64. COIN 8; Fig. 4 x 60 at D.  
Is similar at the lower side, while at the upper  
surface the corrosion product is mainly oxide.



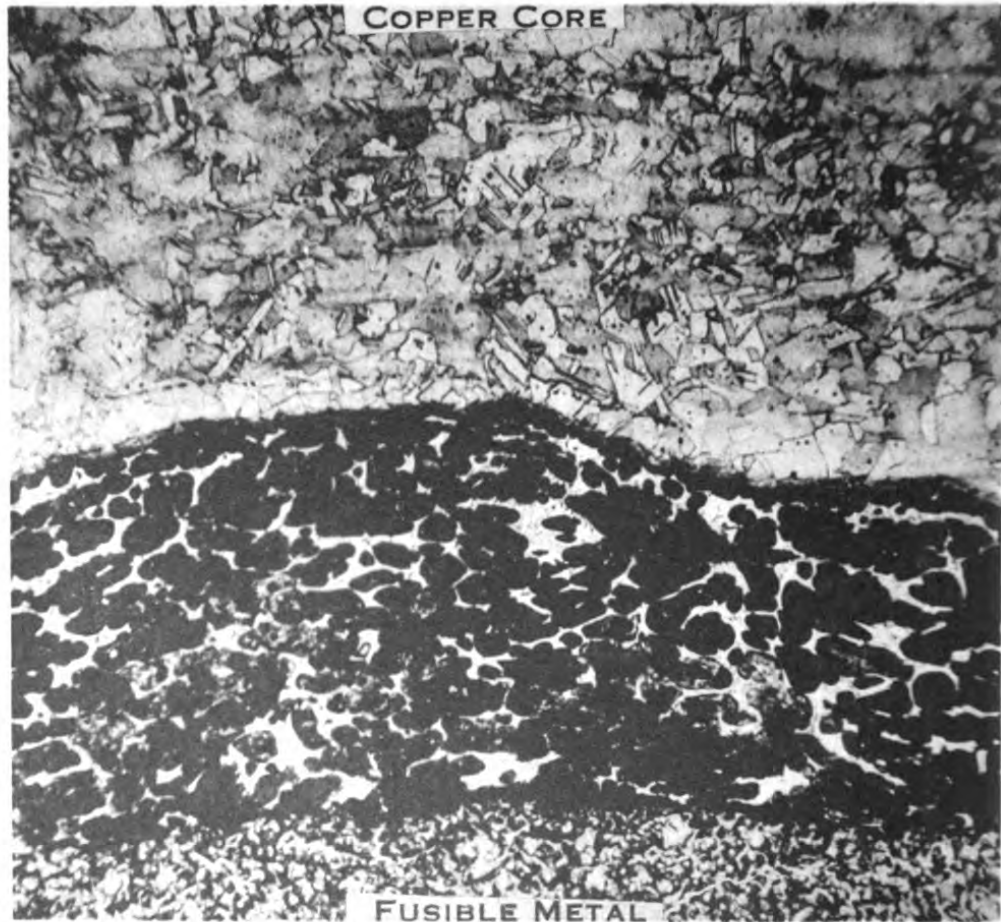




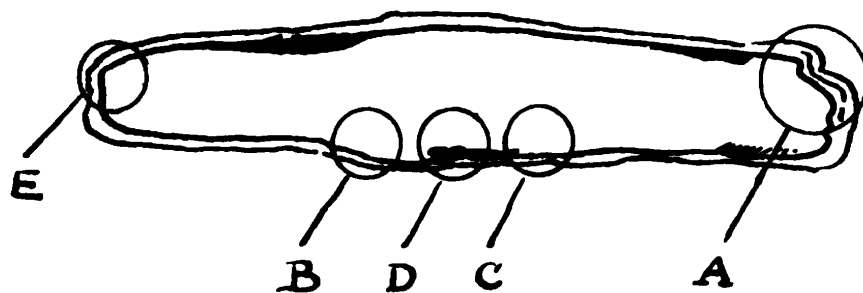


**65.** COIN 8; Fig. 5 x 500 (opposite). Shows the details of structure of the coating; patches of the copper-silver eutectic surround irregular grains of oxide or carbonate at the outside while veins of the eutectic have penetrated around the copper grains at the inner surface. The section showed so much corrosion that the silver coating did not show up well. It was therefore filed down further, repolished and etched.

**66.** COIN 8; Fig. 6 x 100 (above).

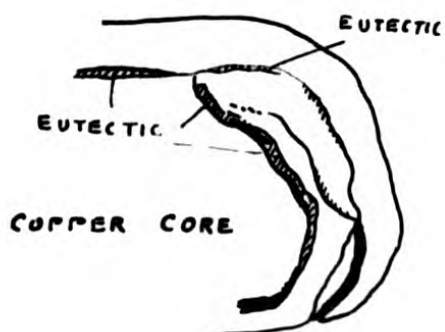
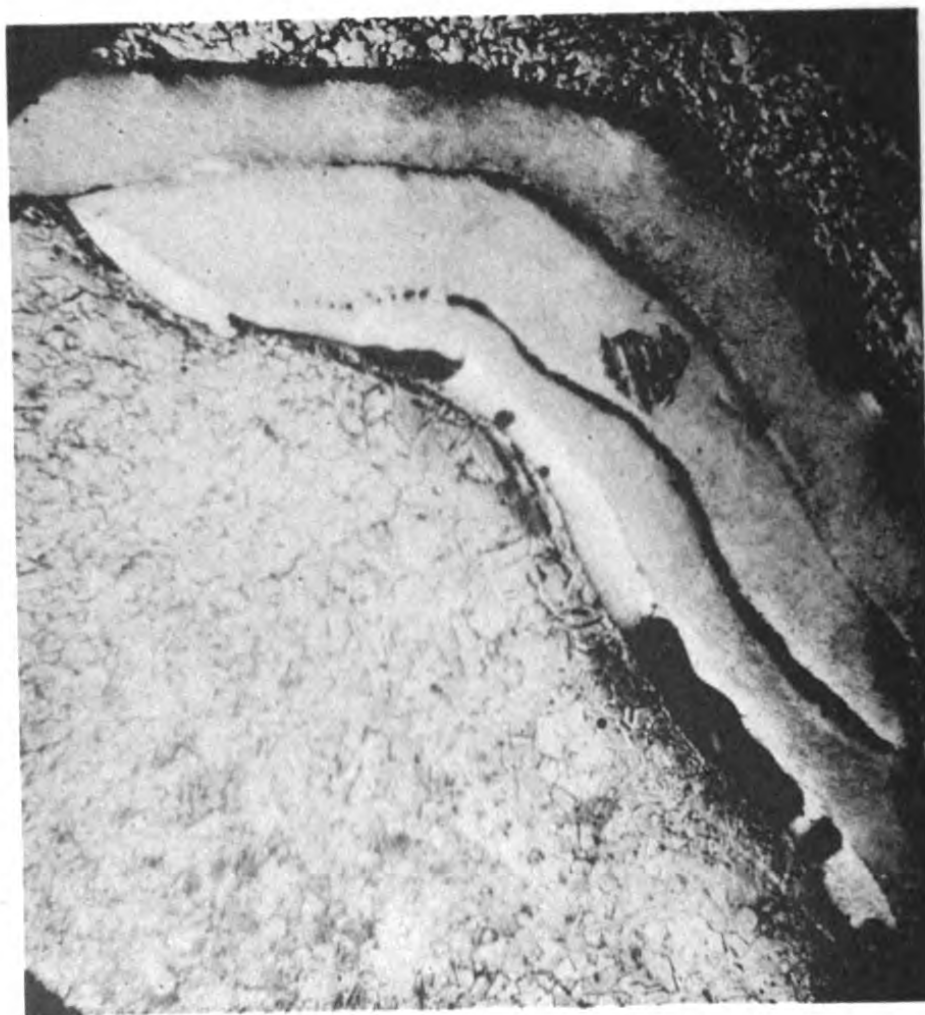


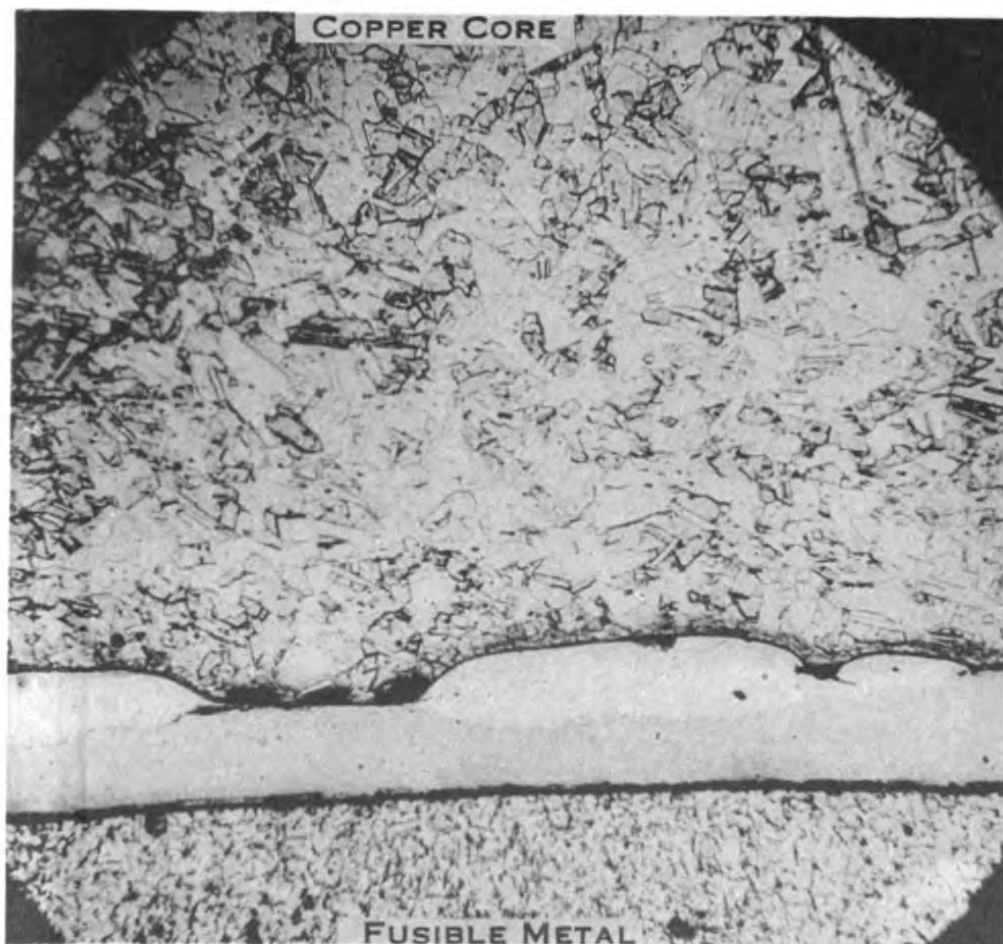
67. COIN 8; Figs. 6 (preceding page) and 7 (above)  $\times 100$ . These now show the coating much better. The white patches of the eutectic are surrounded by oxide of copper which originally consisted of excess copper crystals; the coating contains less silver than the eutectic alloy.



68. COIN 9. Suessa. Campania, Italy. Didrachm about 280 B. C. *Obv.* Head of Apollo. *Rev.* Mounted horseman carrying filleted palm and leading a second horse. The edge of the coin shows a distinct lap. Under the microscope the silver coating sometimes lies against pure copper, sometimes against irregular patches of copper oxide, and at others against irregular patches of the eutectic alloy (solder). The laps at the two ends of the section are perfectly clear.

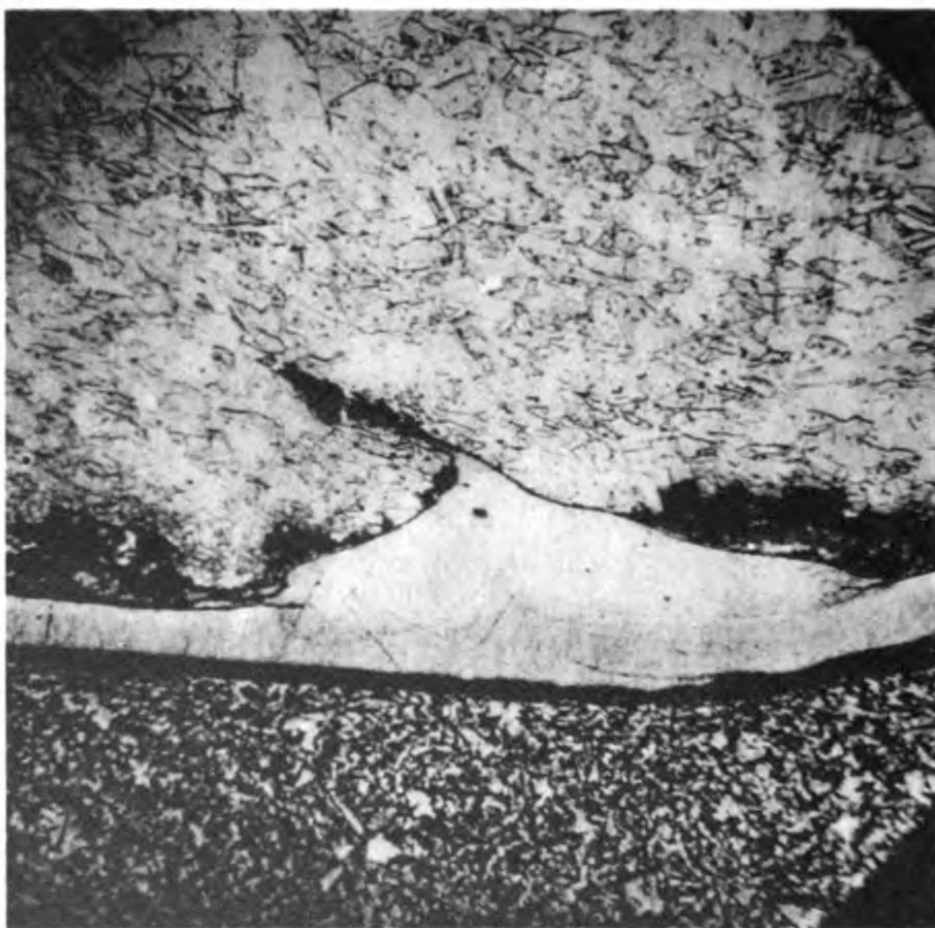
CONCLUSION. This is the best example of a silver coating applied in two pieces, lapping one over the other and soldering the whole by the silver-copper eutectic which was applied in pieces as in the ordinary method of silver soldering. The heat was not high enough or the copper surface was not clean enough to produce an even flow of the solder, hence the unsoldered areas between copper and silver. However, it is possible that this coin may have been produced by the old Sheffield plate method, though the structures at A and E seem to prove the use of silver solder





69. COIN 9; Fig. 1 x 60 (opposite). Shows the lap at A. The outer layer of silver forms the top, the inner one the bottom cover. Between is an extra piece which may be due to a fold in the lower covering. The white patches next the core are the eutectic solder.

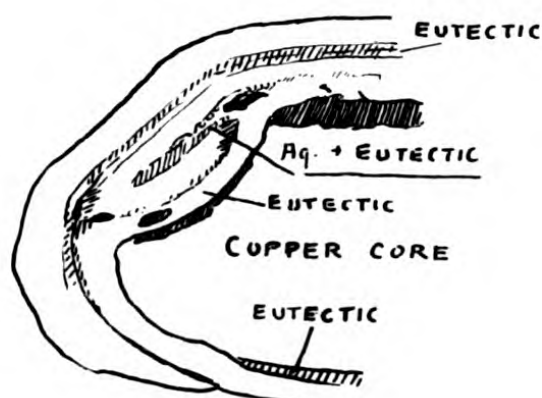
70. COIN 9; Fig. 2 x 60 at B (above). Shows irregular patches (not continuous) of the solder next the core.

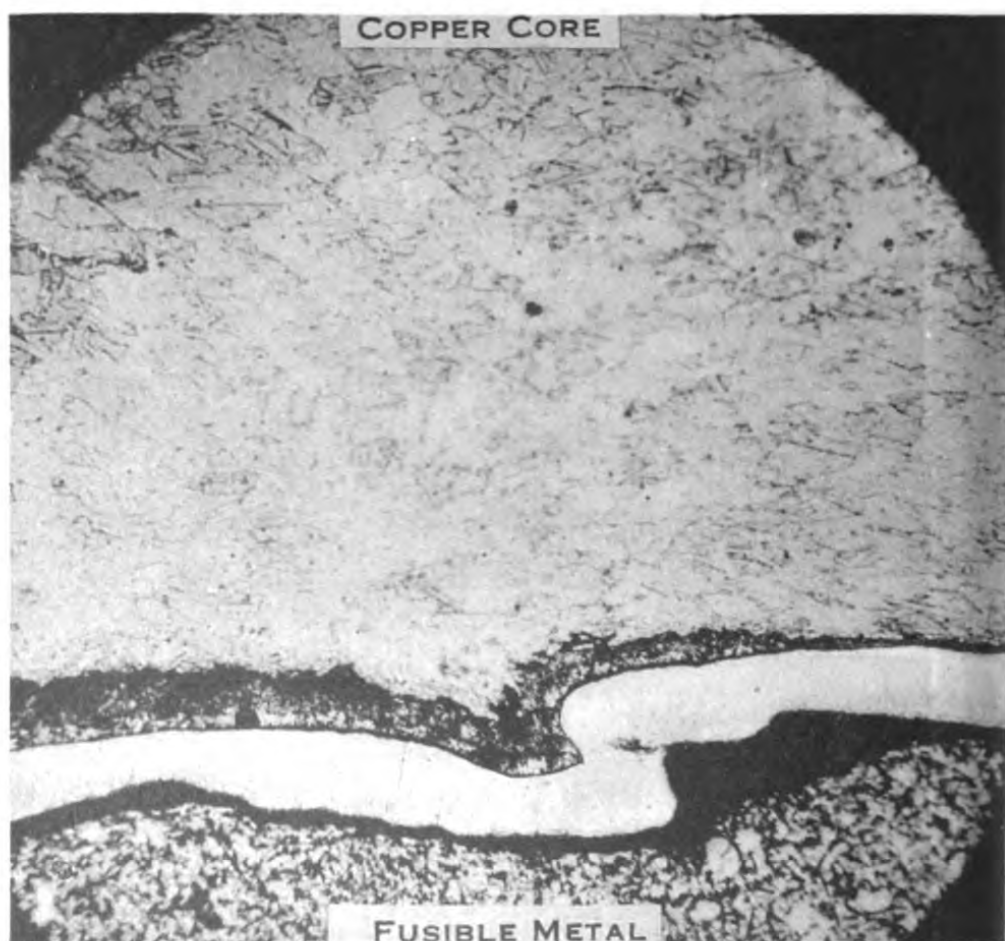


71. COIN 9; Fig. 3 x 60 at D (above).  
Is similar, with one thick patch of solder, and a  
good deal of oxide on the surface of the copper.

72. COIN 9; Fig. 5 x 60 at E (opposite).  
Similar to Fig. 1 except that there is an extra  
strip of silver with a distinct fold, forming part  
of the top cover. The three pieces are held to-  
gether by a layer of the eutectic solder.





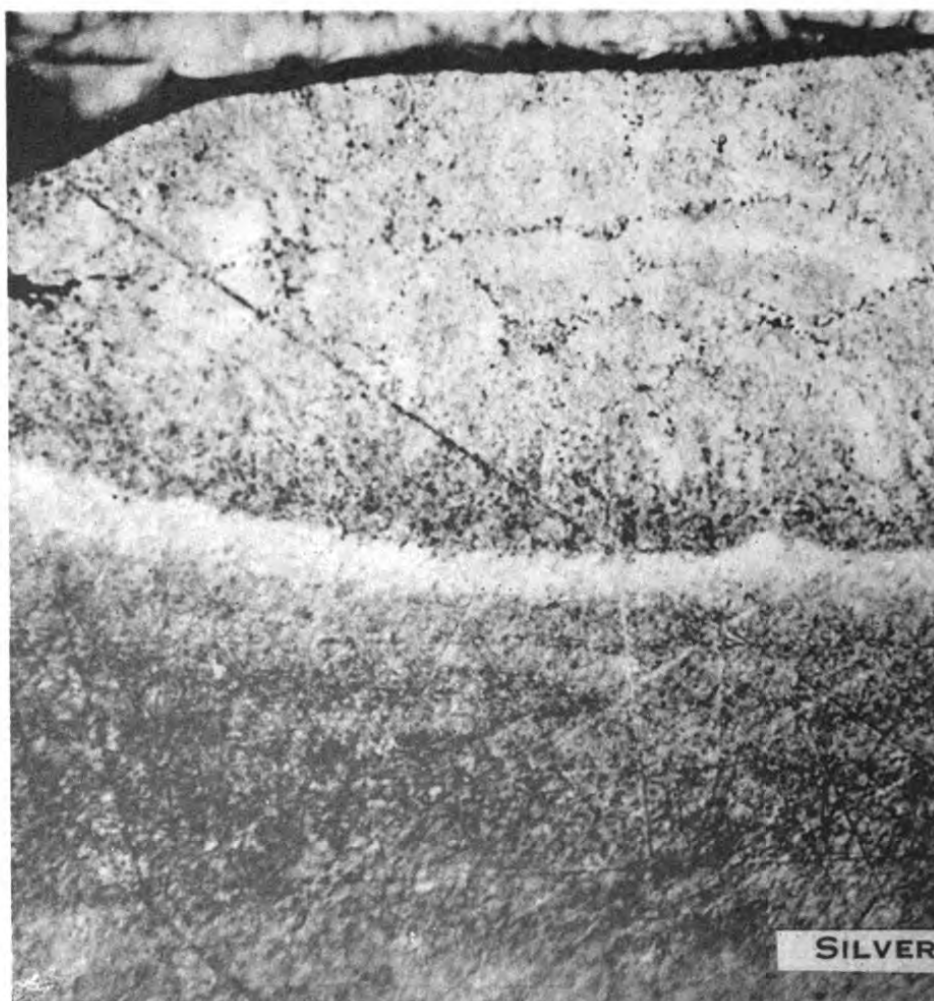


73. COIN 9; Fig. 4 x 60 at C (above). Shows no solder at all, but the silver coating lies against a band of copper oxide.

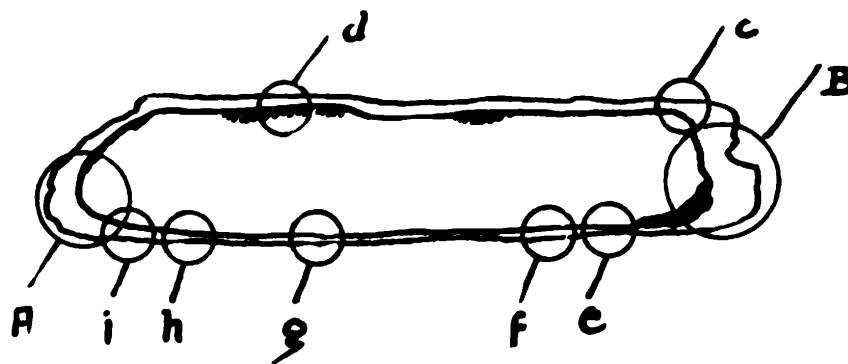
74. COIN 9; Fig. 6 x 500 at B (opposite). The upper part is the copper, the lower is the silver, while the middle wedge-shaped mass is the eutectic.







75. COIN 9; Fig. 7 x 500 near B. Similar to Fig. 6, but the eutectic has a very fine texture. This may be due to quenching the completed coin before the eutectic was completely solid, or to the presence of some other constituent such as tin. Zinc, of course, was not known at this early date, though brass was made by the Romans from copper and zinc ores (carbonate).

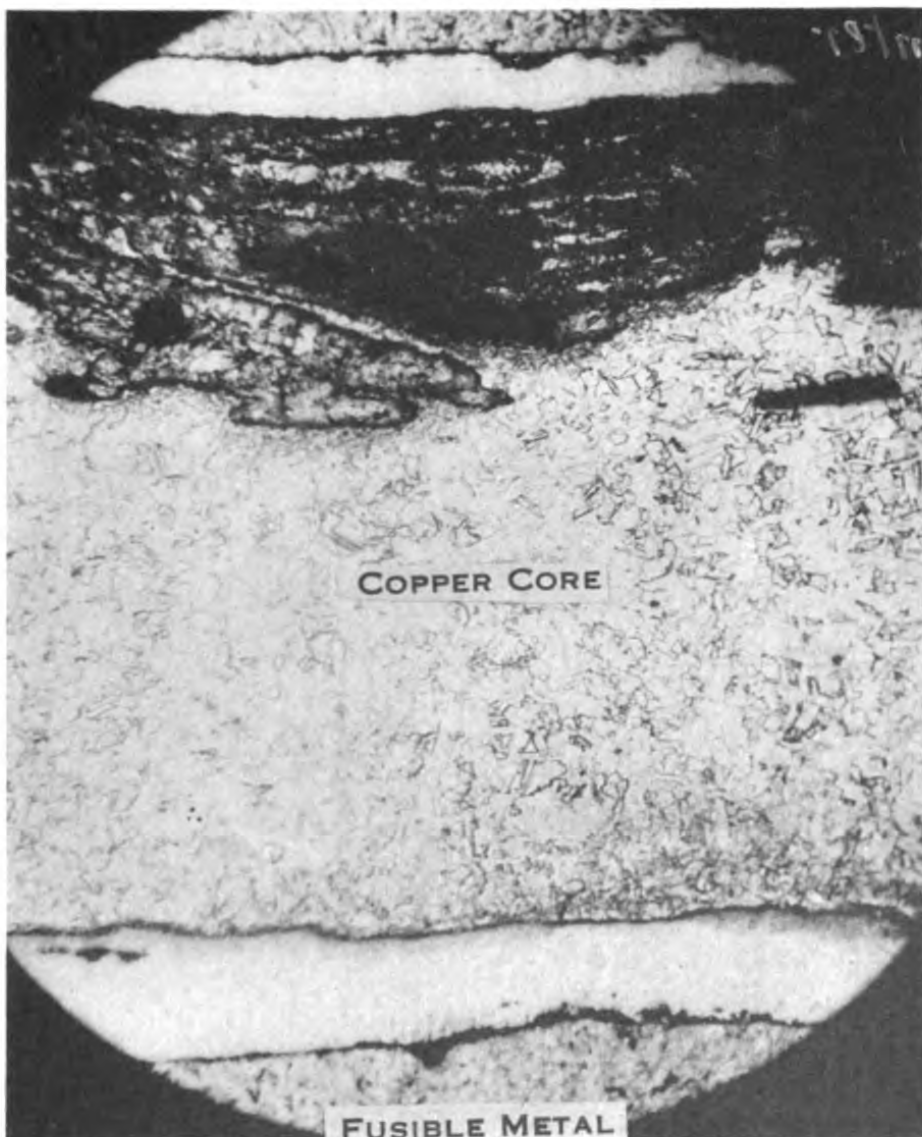


76. COIN 10 (0.12); Roman Republic. Family Denarius. Marcus Parperius Carbo. Second Century B. C. *Obv.* Helmeted head of Roma to r. *Rev.* Quadriga to r. Showed a deeply corroded spot on the surface. To the eye one spot on the edge seems to show a lap or fold. Under the microscope the copper core shows deep corrosion on one side and at the ends of the cross section. Between the copper core and the silver coating are thin films of the eutectic which, however, are not continuous. No laps or joins of the silver coating were found.

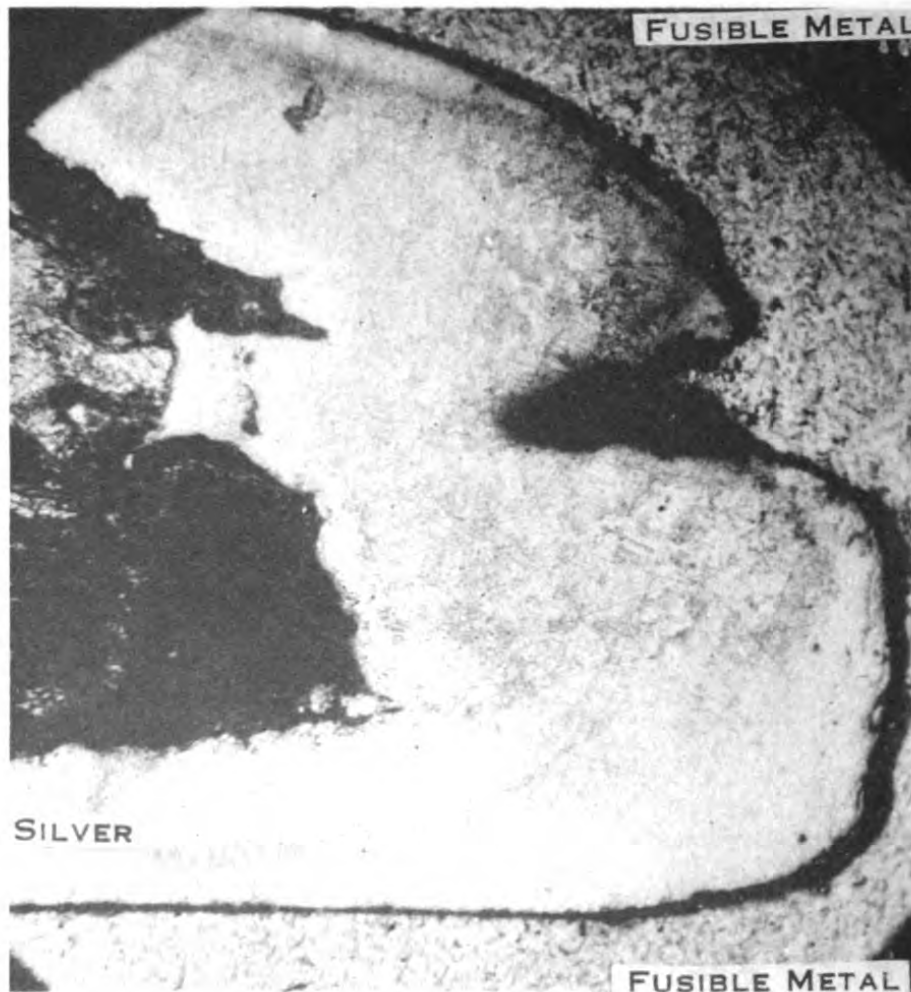
CONCLUSION. Here again the occurrence of the eutectic alloy might mean the use of silver solder, but from the general appearance of the structure it is more likely that the method was that of Sheffield plating.



77. COIN 10 (0.12); Fig. 1 at A x 60.  
Shows one end of the cross section. The copper core is mainly corroded to carbonate. The silver coating is one continuous piece. A small patch of eutectic is seen at the lower right (Fig. 4).



**78.** COIN 10 (0.12); Fig. 2 near center x 60. Shows both surfaces. Below the upper silver surface the copper core is deeply corroded, chiefly to carbonate. The low surface shows no corrosion. The silver coating is joined to the copper core by a thin film of eutectic into which the silver has diffused.



79. COIN 10 (0.12); Fig. 3 at B x 60 (above).

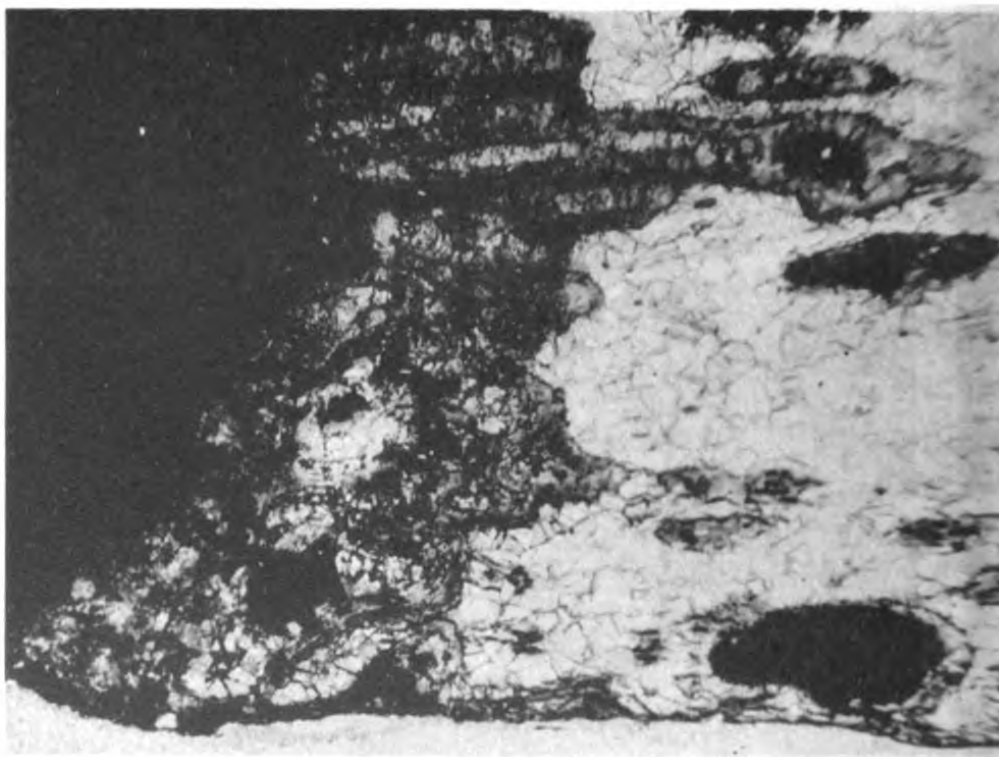
Shows the other end of the cross section. The silver coating is continuous, no film of eutectic being seen even at a higher magnification.

80. COIN 10 (0.12); Fig. 4 at A x 250 (opposite)

shows the join. The core shows deep corrosion to oxide and carbonate. An irregular patch of the copper-silver eutectic is between the copper oxide and the silver coating. Another small patch is in the midst of the copper oxide.

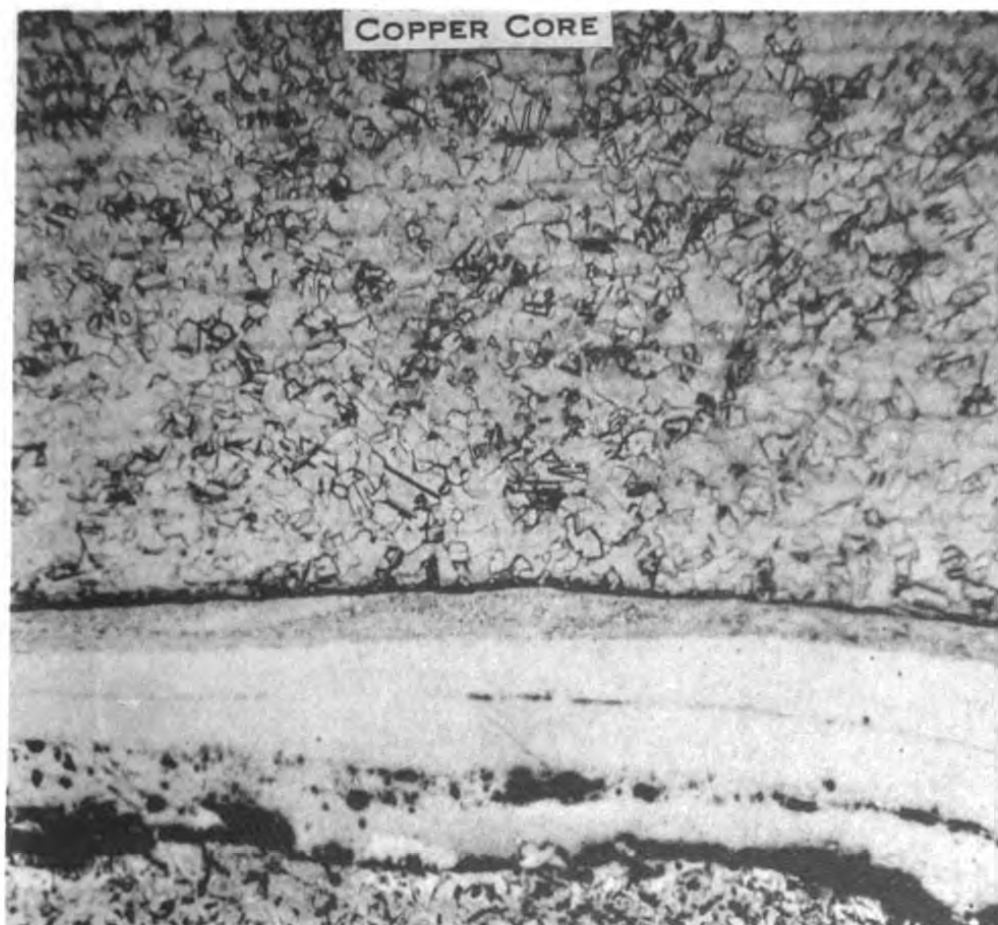




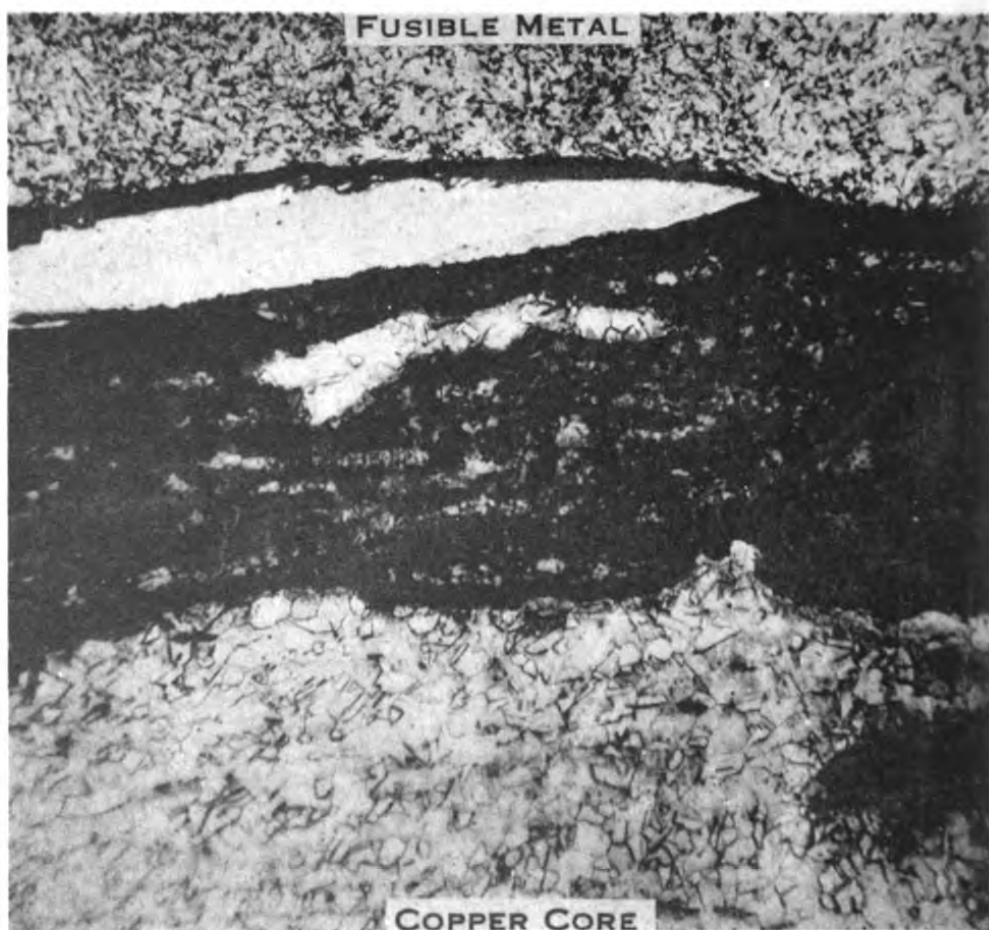


81. COIN 10 (0.12);                      Fig. 5 at I x 100.  
Shows the silver coating near the end of the section. On the right the copper core is badly oxidized while on the left there is a void where the soft copper carbonate has fallen out. The silver is attached to the copper by irregular patches of the eutectic alloy. In order to see whether a lap in the silver coating could be found by cutting deeper into the coin, it was filed down further and a new surface prepared.

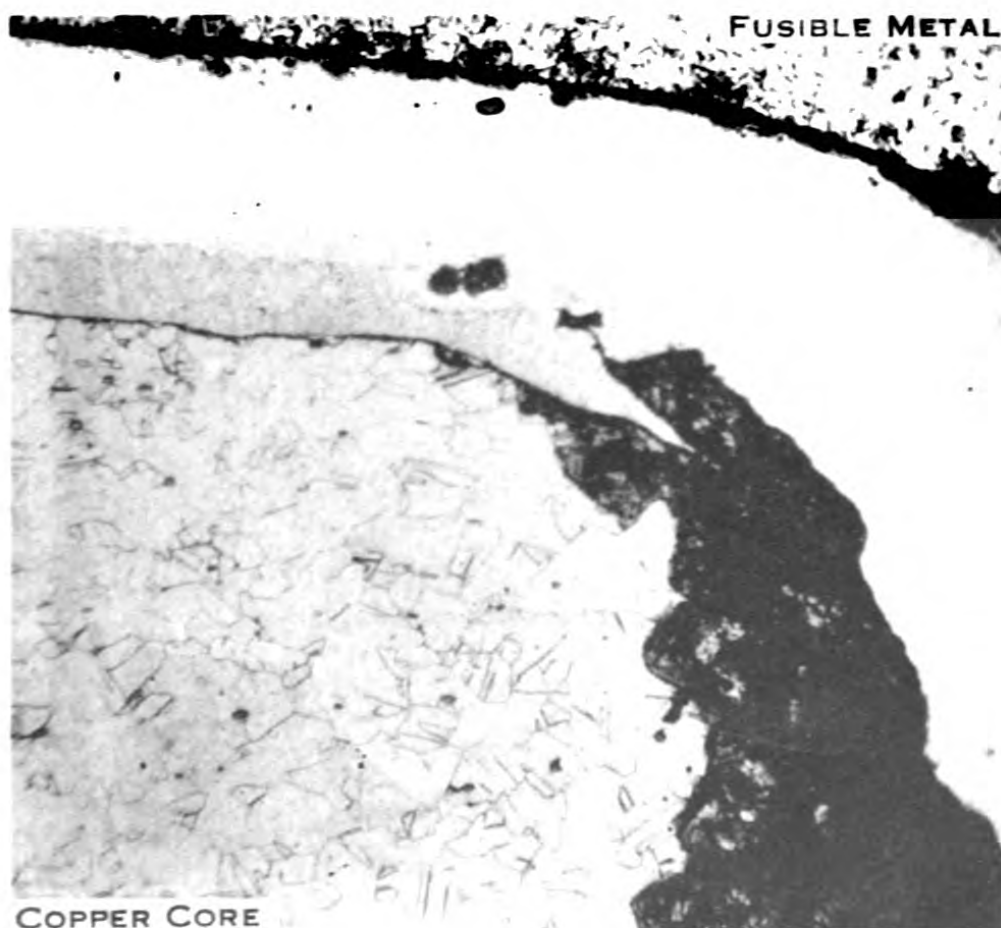




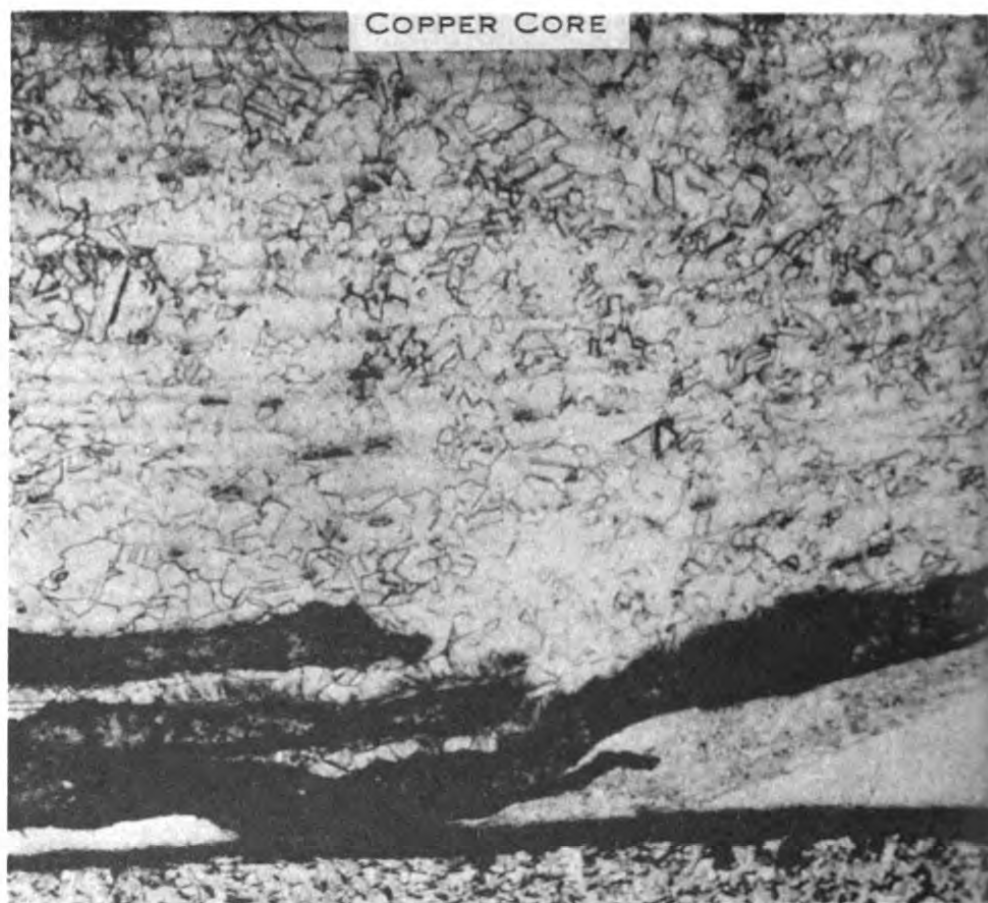
**82. COIN 10 (0.12);**      Fig. 6 at E x 100.  
Shows practically no oxidation of the copper core which it attached to the silver by a thin layer of the eutectic alloy. The silver is in three layers, the lower two being separated by a film of copper oxide.



83. COIN 10 (0.12); Fig. 7 at D x 100.  
Shows another hole in the silver coating below  
which the core has corroded very deeply.



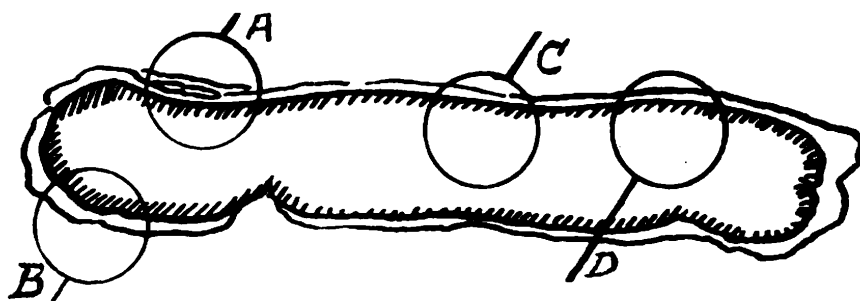
84. COIN 10 (0.12); Fig. 8 at C x 100.  
Also shows corrosion of the core while the silver  
coating is attached to the unoxidized copper by  
a thick patch of the eutectic alloy.



**85.** COIN 10 (0.12); Fig. 9 at F x 100 (above). Shows a hole in the silver coating below which the copper core has oxidized. The eutectic alloy is seen on the right.

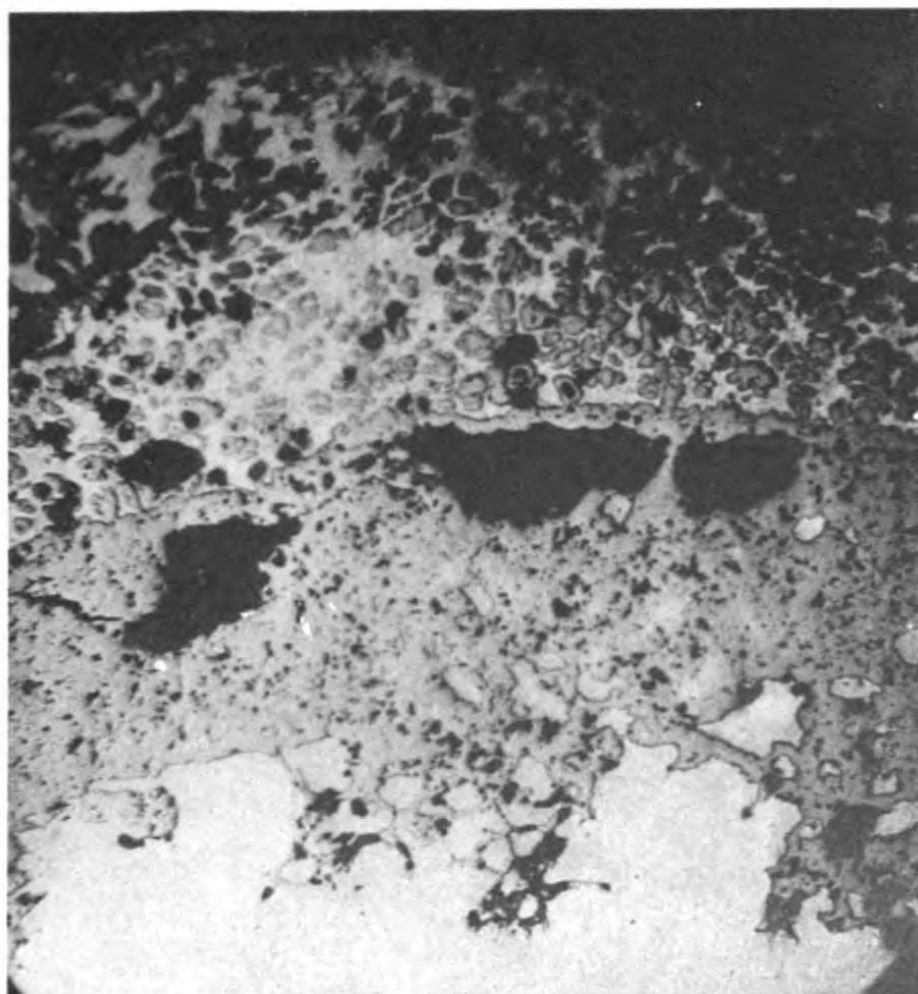
**86.** COIN 10 (0.12); Fig. 10 at F x 500 (opposite). Shows the copper core above, next a layer of oxide and a hole which was carbonate, followed by a thick patch of the eutectic passing into the silver coating.





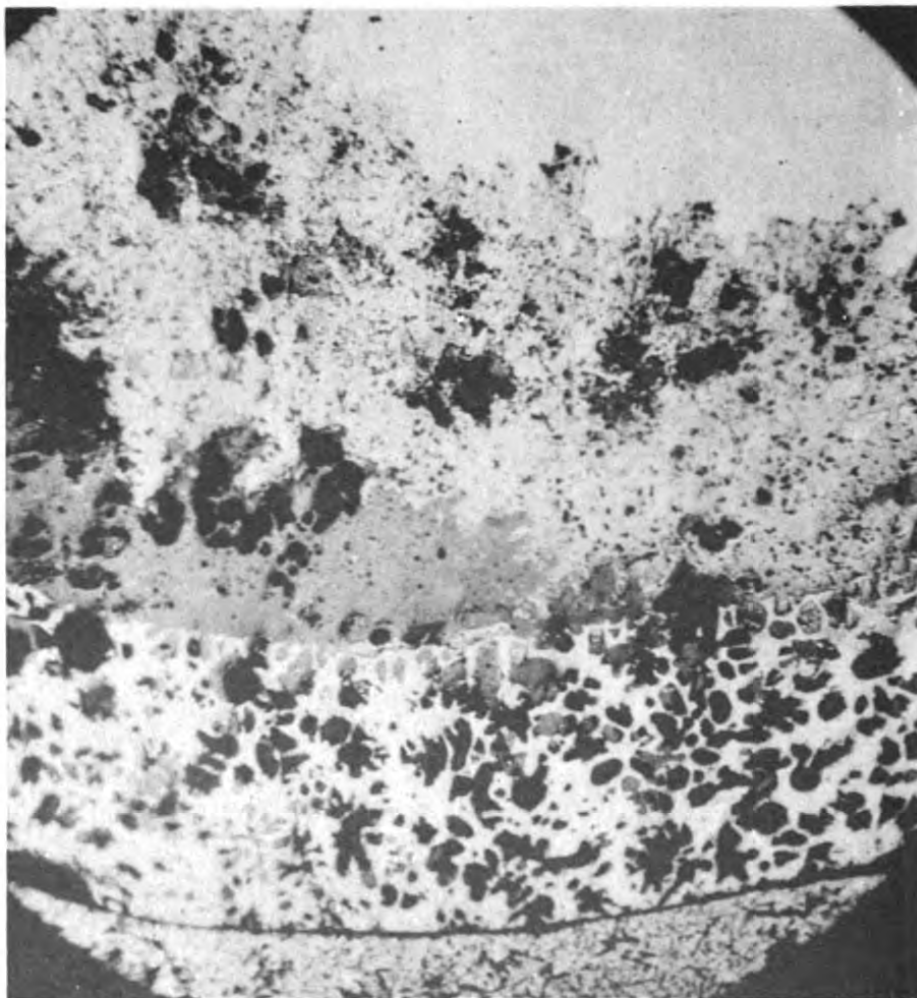
87. COIN 11; Neapolis, Macedonia, about 450 B. C. *Obv.* Gorgon-head. *Rev.* Incuse square, quartered. No laps visible. The silver surface is pitted as if corroded, and resembles No. 2 and No. 8. The cross section shows deep corrosion of the copper core. The coating was originally base silver, consisting of dendrites and grains of copper surrounded by the copper-silver eutectic. The copper grains and dendrites have for the most part become copper oxide and the structure shows up without etching.

CONCLUSION. This is another case where the coating was not silver, but the copper-silver alloy with less silver than the eutectic, say approximately silver 35, copper 65 per cent. The method of coating was in all probability one of dipping, or else sprinkling the surface with finely divided silver or alloy and heating till the surface "ran."



**88.** COIN 11; Fig. 1 at A x 60.  
Unetched, shows bright metallic copper below. The central zone is copper oxide with a few holes originally of copper carbonate. The upper zone is the coating, a mixture of copper oxide grains and the eutectic. At the extreme outside the oxide grains had changed to carbonate.





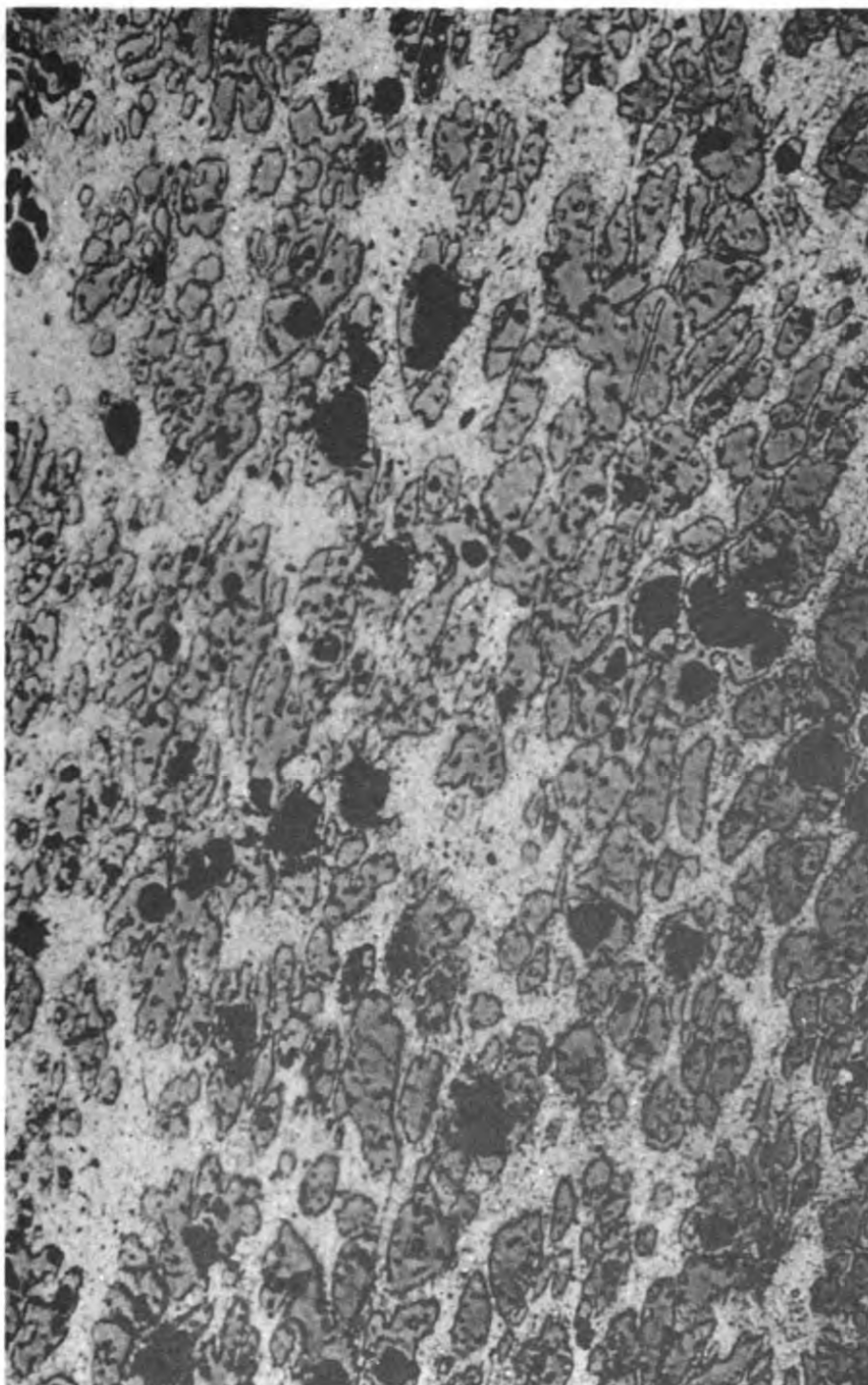
**89. COIN II;**                      Fig. 2 at B x 60 (above).

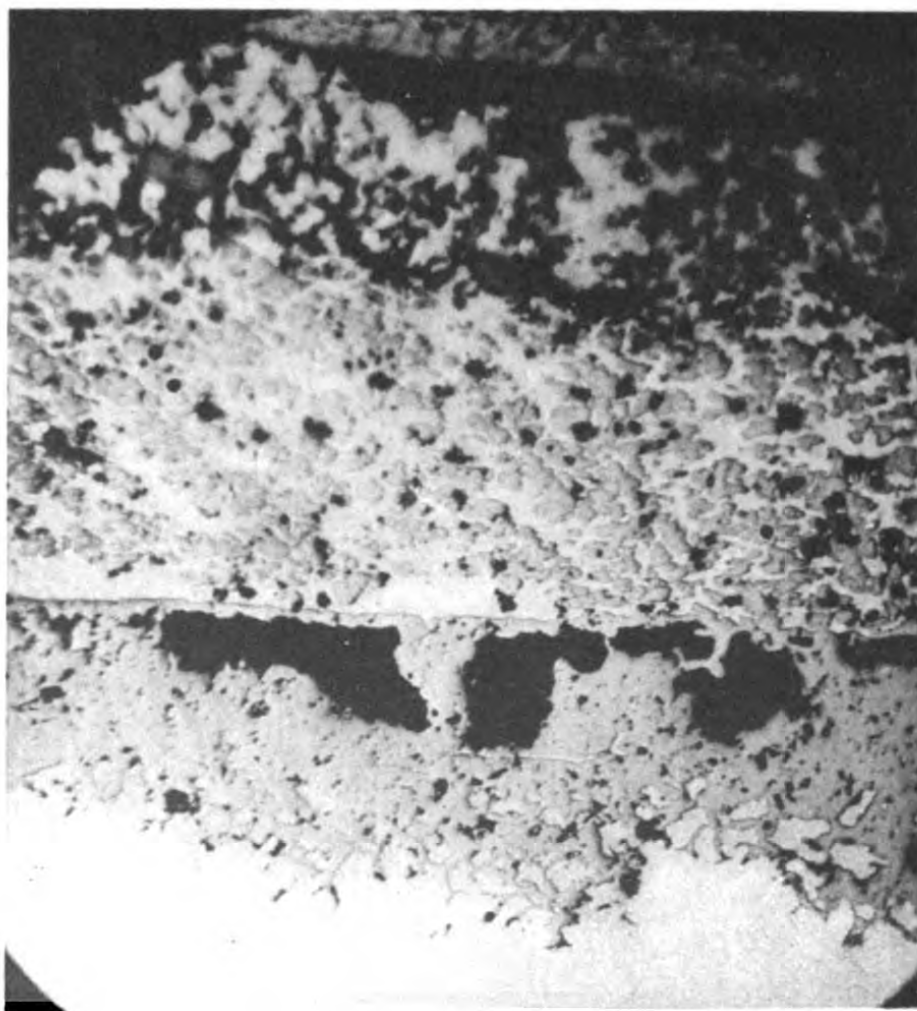
Similar to Fig. 1. The corrosion of the copper core is very deep, while the coating consists of grains or dendrites of copper oxide (or carbonate) in a matrix of the copper-silver eutectic.

**90. COIN II;**                      Fig. 3 x 200 (opposite).

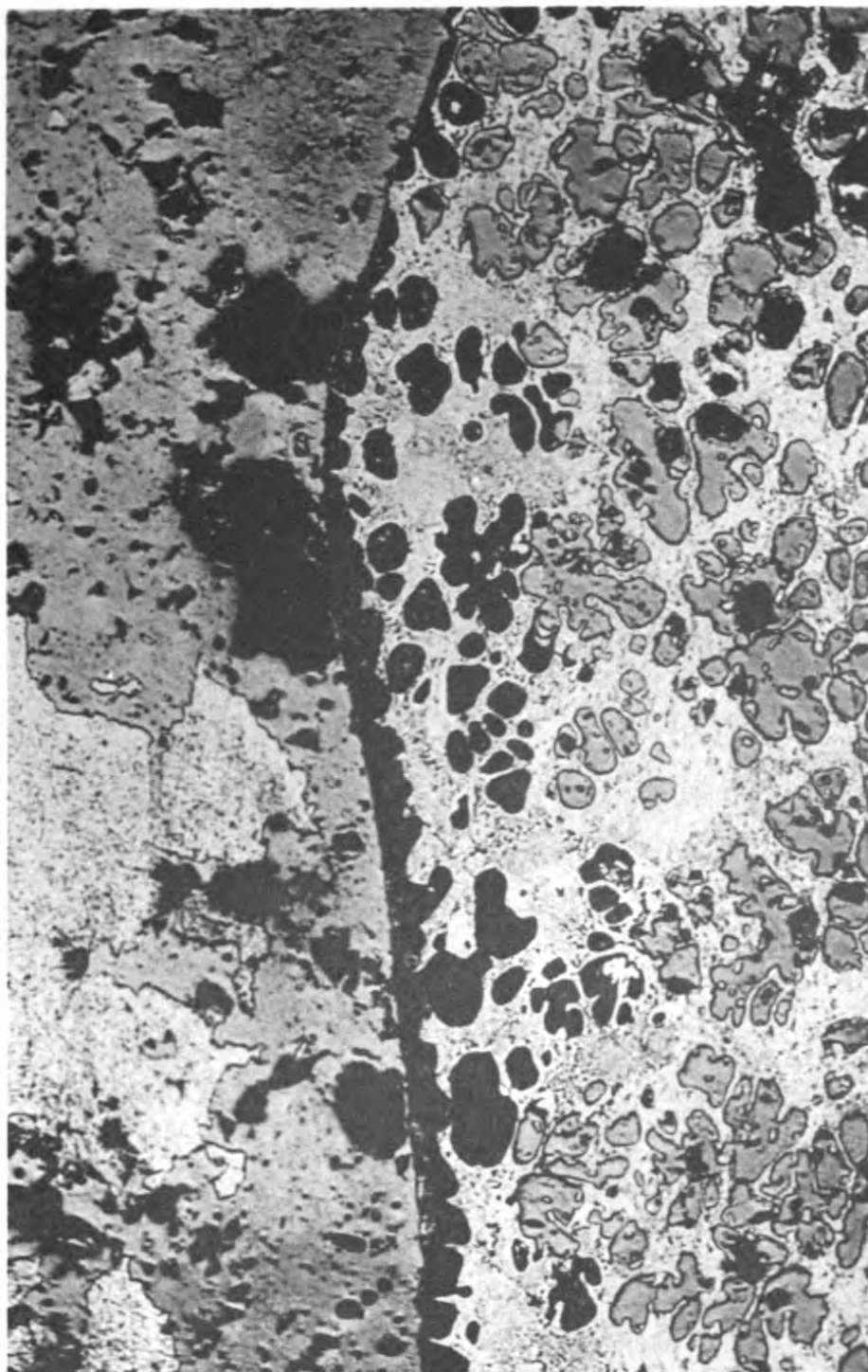
Taken from the center of the coating which consists of grains of copper oxide surrounded by the copper silver eutectic.

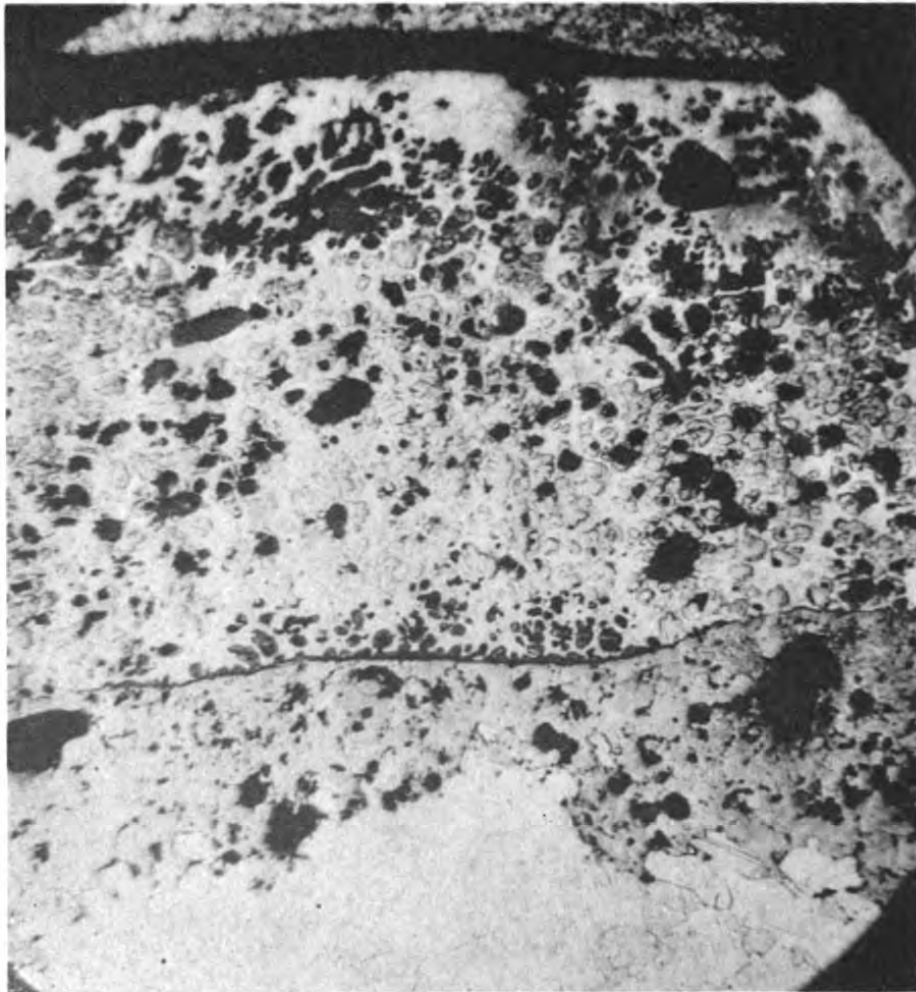




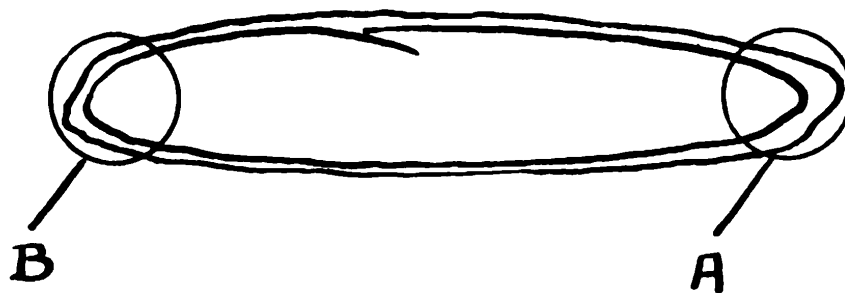


91. COIN II; Fig. 4 at C x 60 (above).  
Like Fig. 1 but in the outer skin all of the copper grains have been corroded to carbonate.
92. COIN II; Fig. 5 x 200 (opposite).  
Shows the inner surface of the coating where it joins the core, which at the surface has changed to copper oxide.



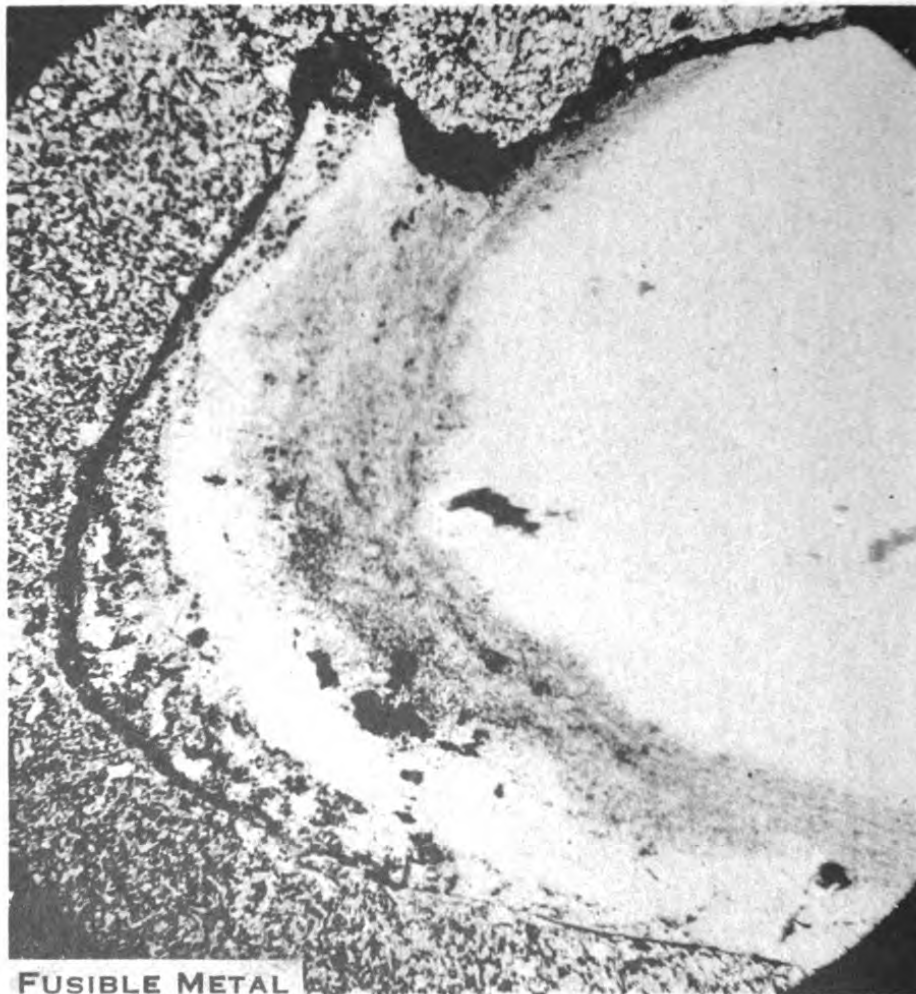


93. COIN II; Fig. 6 at D x 60.  
Shows the structure after etching. The grain of the copper core now shows up, but otherwise there is no change.



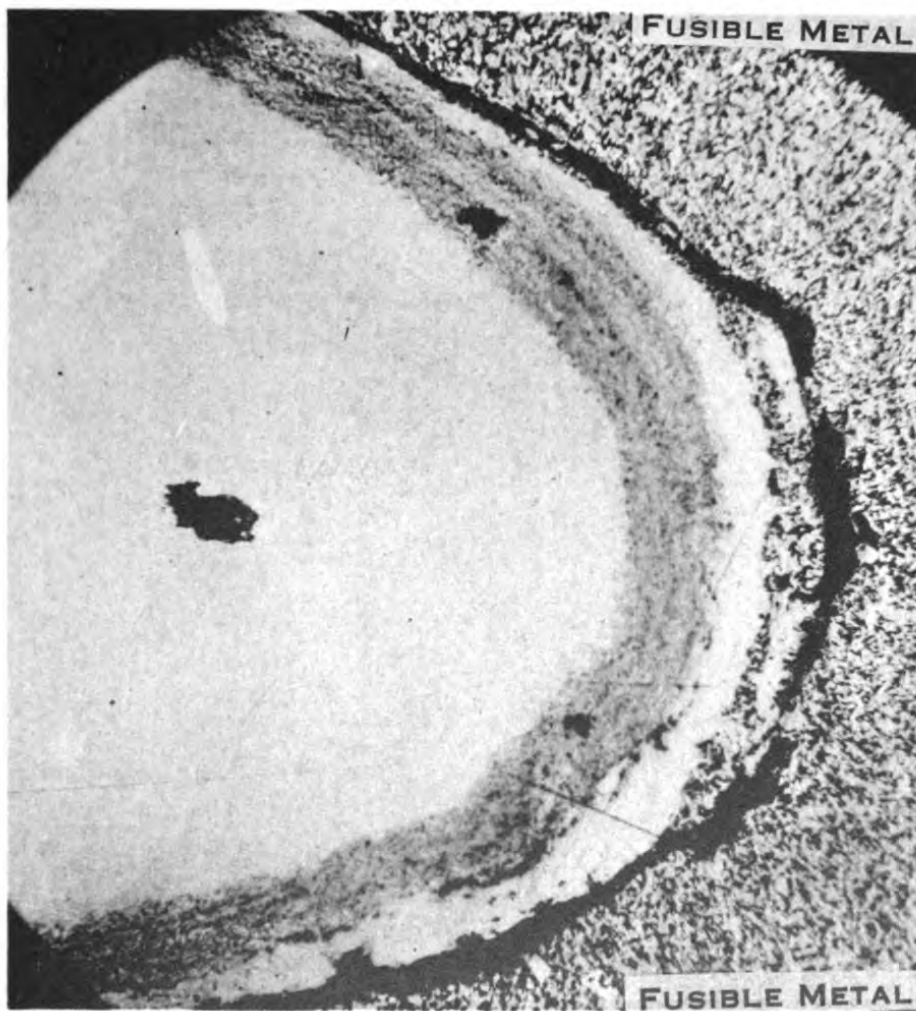
**94.** COIN 12 (0.7); Velia, Lucania, Italy. Didrachm of about 350 B. C. *Obv.* Helmeted head of Athena to left. *Rev.* Lion seizing stag. The coin looks like silver but in places has a fine pitted appearance. It was mounted whole and filed down well below the outer skin. The interior has a silvery appearance. Under the microscope the core has all the appearance of pure silver, but at the surface it has a peculiar corroded appearance.

**CONCLUSION.** Such a structure is very similar to that of corroded sterling silver or standard silver 900 fine, in which the copper has become oxidized at the surface. Some filings were therefore taken from the inner core and dissolved in nitric acid, but the solution failed to show a trace of blue color, which proves that the core is practically pure silver, or at least that it contains no copper. Hence the surface structure cannot be due to oxidation of copper, unless the surface layer did contain some copper while the core was pure silver, which hardly seems reasonable.



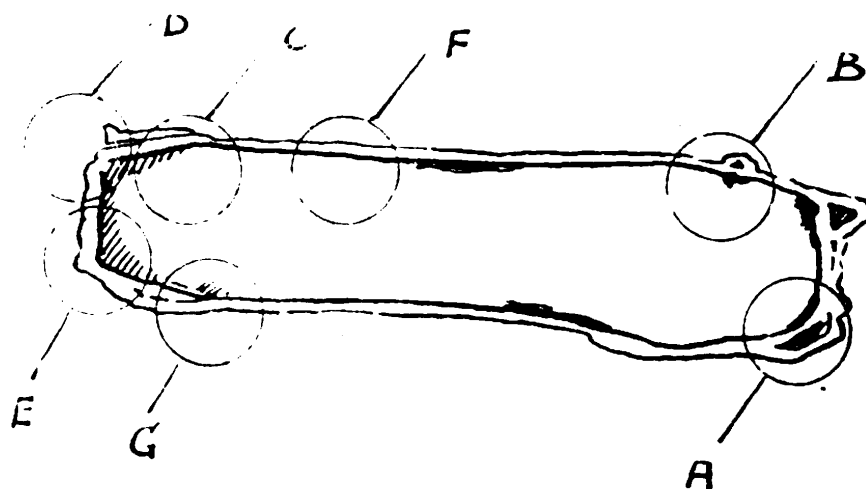
95. COIN 12 (0.7); Fig. 1 at B x 60.  
 Typical of the section as polished. The interior is bright and clean except for one or two small holes. The outer surface shows a number of black inclusions below which there is a thin irregular zone of clean metal. Below this is a wider band full of tiny black particles.





96. COIN 12 (0.7);  
Very similar to Fig. 1.

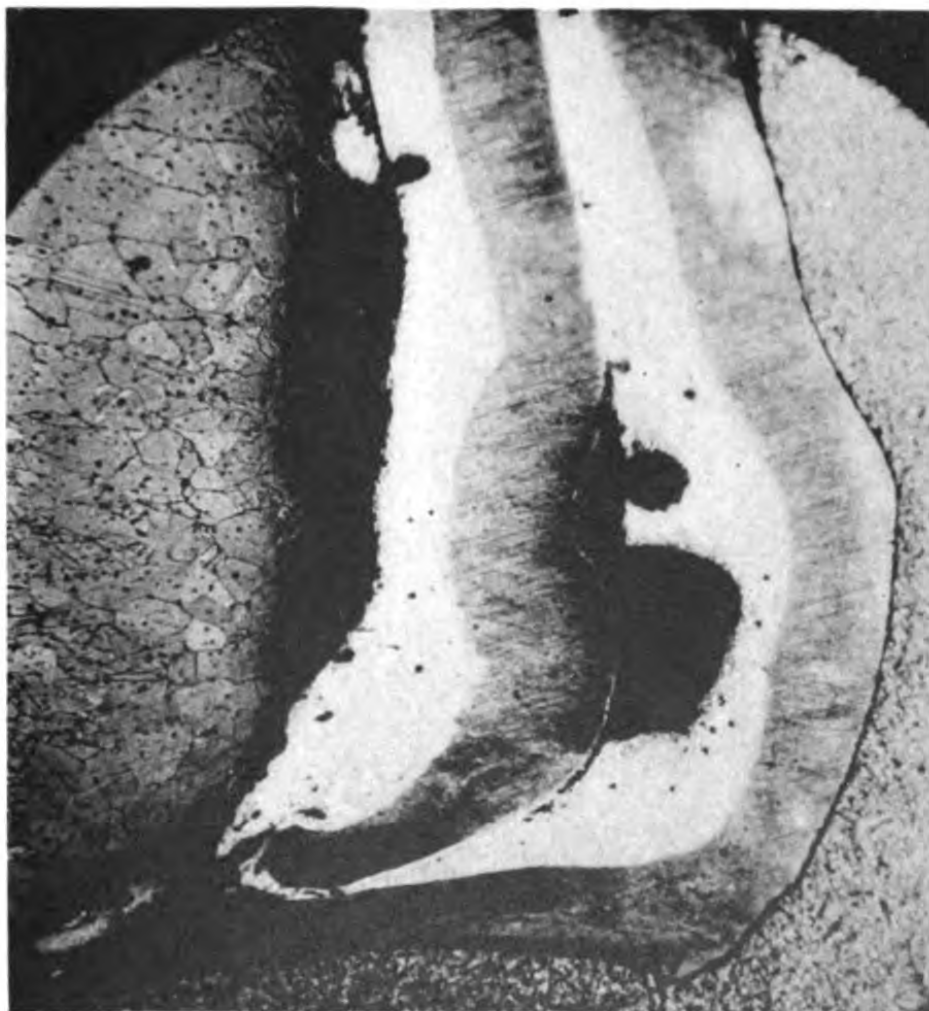
Fig. 2 at A x 60.



97. COIN 13 (0.10); An experimental coin made by Dr. Robinson to illustrate what appeared to be the method of plating, *i. e.* close plating by means of tin as a soldering medium. A copper blank was taken and two pieces of silver foil were burnished over it. The whole was joined with a film of tin and then struck between dies. The surface shows a distinct lap where the one piece of foil overlaps the other. A cross section was cut and polished and three distinct zones were seen, the copper core, a tin-rich solder containing silver and copper, and the outer coating of silver. The laps at the two ends of the section were quite distinct.

CONCLUSION. The above example of close plating with tin as the joining medium has no resemblance to the previous samples and proves that the latter were not made by close plating.

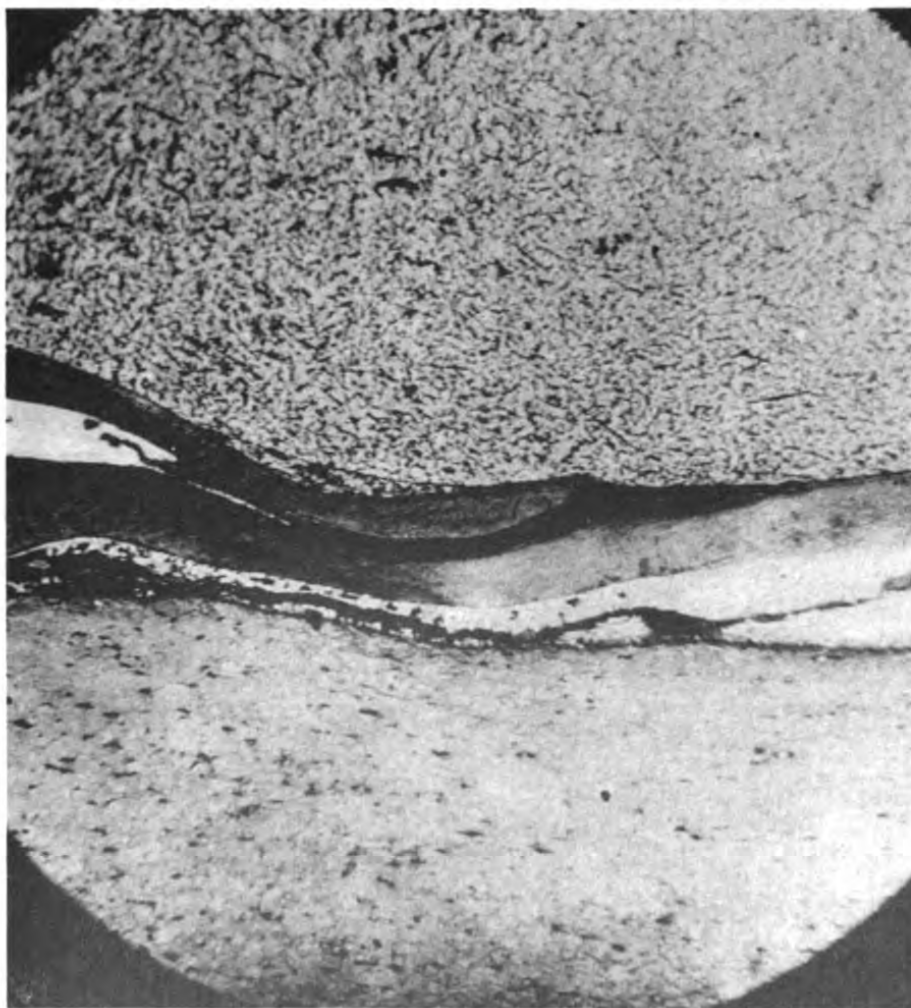




**98.** COIN 13 (0.10);      Fig. 1 at A x 60.  
Shows the lap. On the left is the copper core,  
on the right the fusible metal mounting-medium.  
The two bands of silver are joined by a layer of  
white tin alloy, which also lies between the inner  
silver foil and the copper core.



99. COIN 13 (0.10);                      Fig. 2 at B x 60.  
Shows the other end of the lap where the fold was  
visible to the eye because the tin solder had just  
failed to reach the surface and make a perfect  
joint.

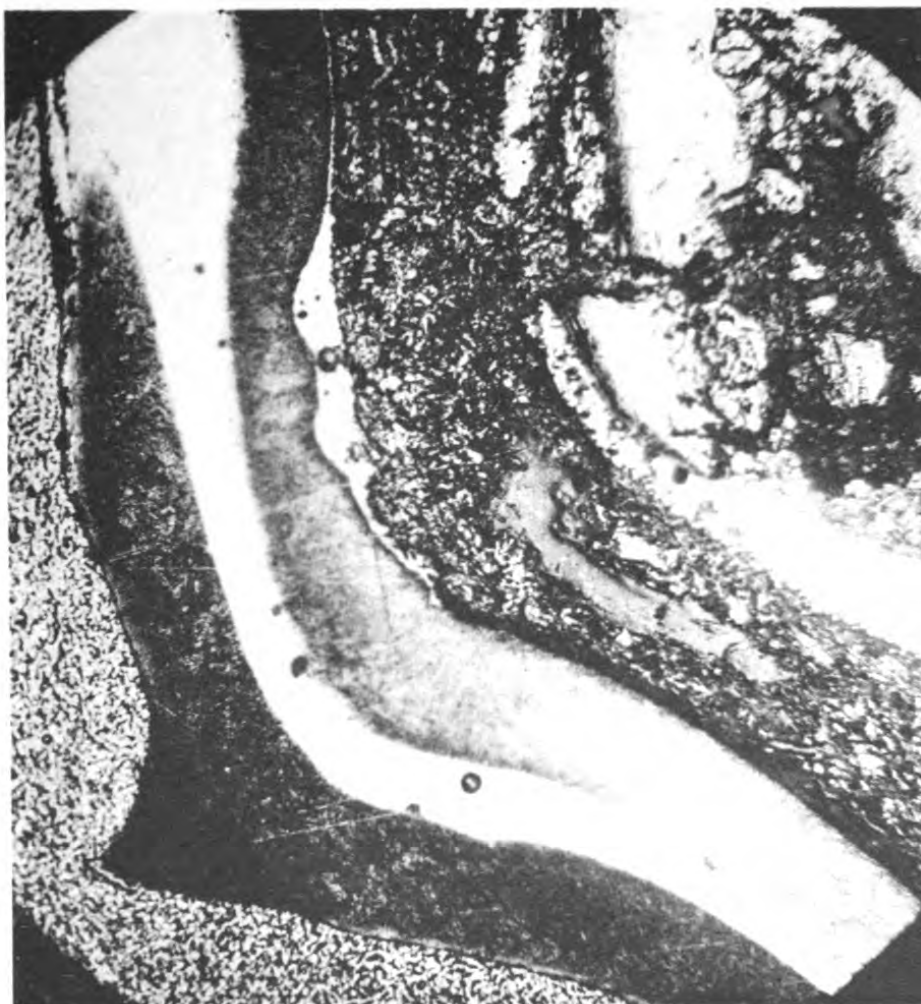


100. COIN 13 (0.10);      Fig. 3 at C x 60.  
The end of the lap at the opposite side. Again the  
tin solder has failed to reach the surface.



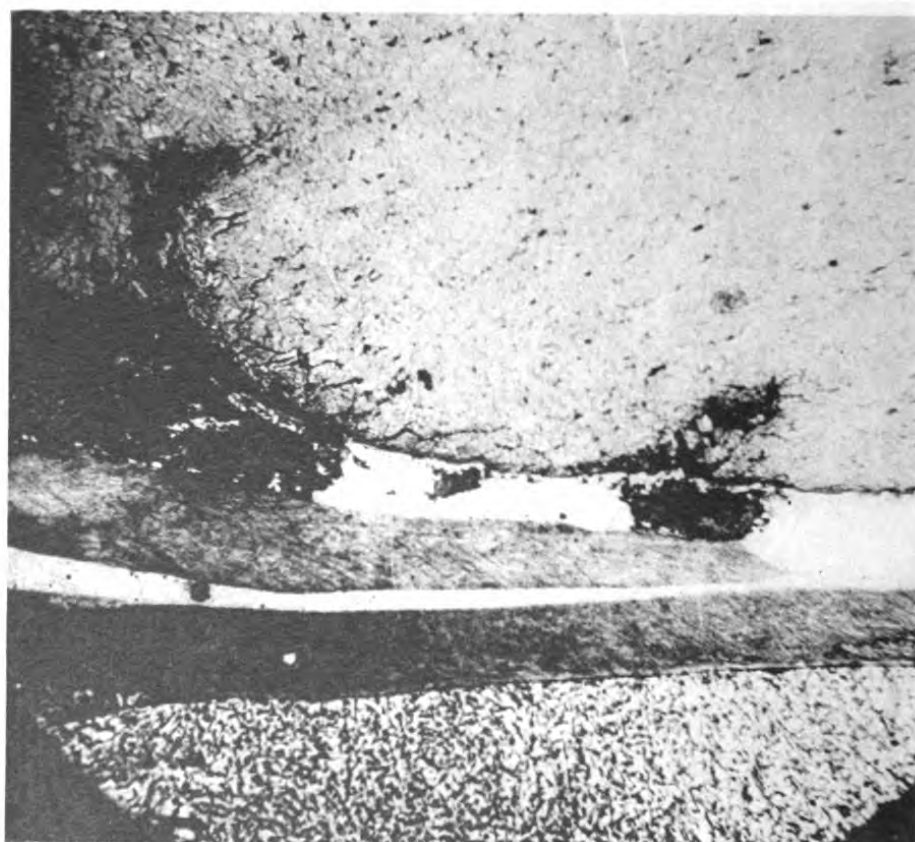
101. COIN 13 (0.10);                      Fig. 4 at D x 60.

A continuation of this joint with part of the edge missing on the left, having been previously filed down to show the tin.



102. COIN 13 (0.10); Fig. 5 at E x 60.

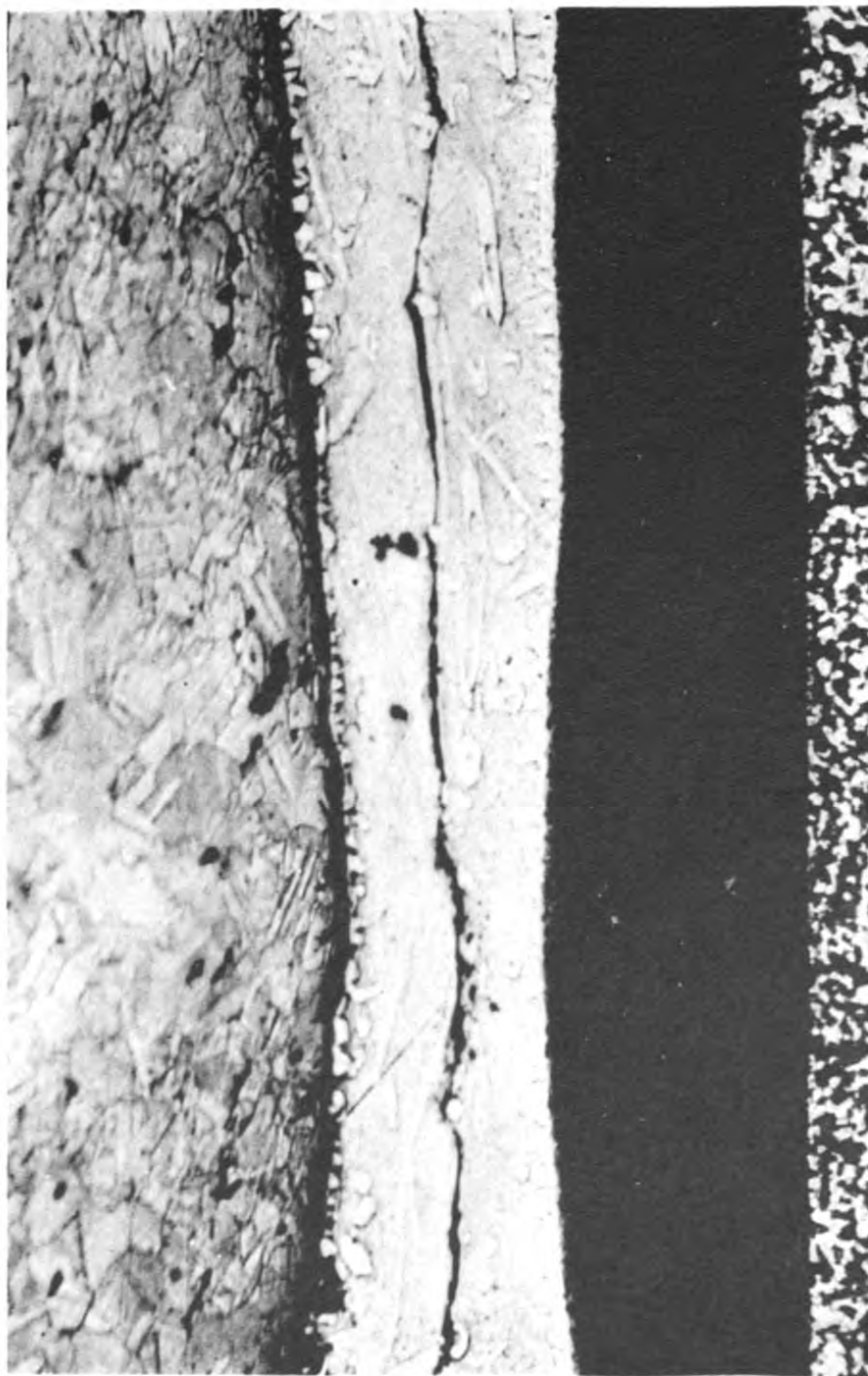
A continuation of the same, showing the two layers of silver with the tin alloy between. There is a layer of dross between the core and the inner band of silver.

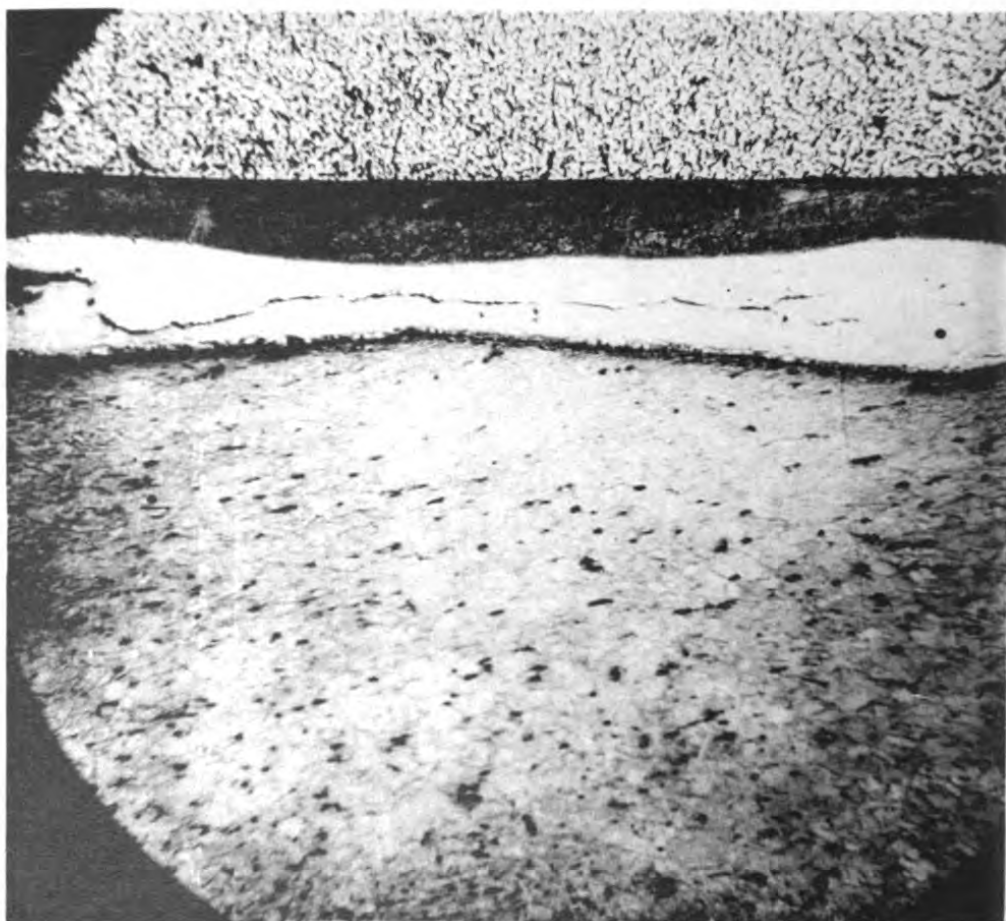


103. COIN 13 (0.10); Fig. 6 at G x 60 (above). Shows lower end of lap and is almost a continuation of Fig. 5. The end of the inner silver strip is completely surrounded by the tin alloy.

104. COIN 13 (0.10); Fig. 7 at F x 200 (opposite). The structure of the tin alloy shows three constituents. From the silver, crystals of  $\text{Ag}_3\text{Sn}$  grow down into the tin-rich matrix; from the core, crystals of  $\text{CuSn}$  grow upwards. In the center are hollow crystals of  $\text{CuSn}$  and long platy pinkish crystals of  $\text{Ag}_3\text{Sn}$ . The matrix is the ternary eutectic of tin,  $\text{CuSn}$ — $\text{Ag}_3\text{Sn}$ .





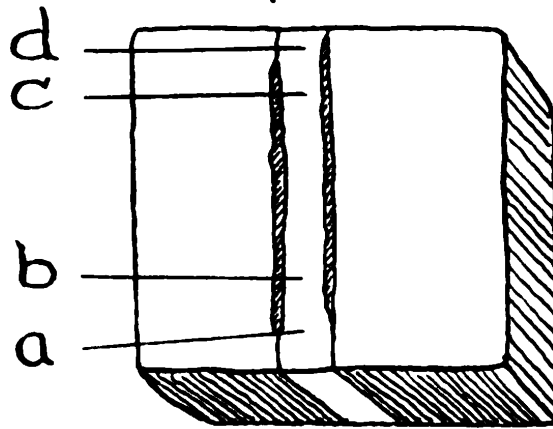


105. COIN 13 (0.10); Fig. 8 at F (above).  
Shows the structure where there is the single layer  
of silver held in place by a thick layer of the tin  
alloy.

106. COIN 13 (0.10); Fig. 9 x 500 (opposite).  
Shows crystals further enlarged. The black  
streak at the middle is dross.







#### 107. EXPERIMENT A; WITH SOLDER.

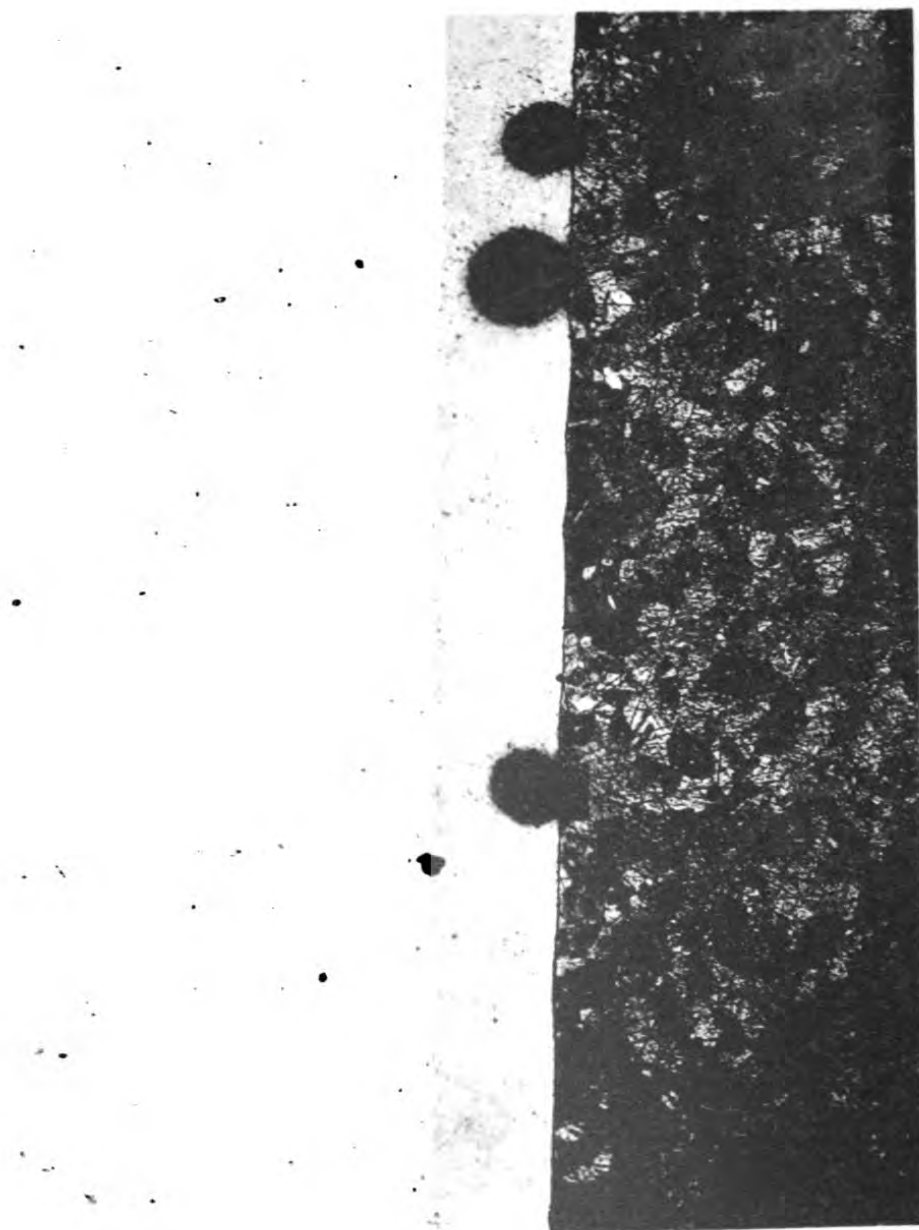
In order to compare the structure produced by joining silver to copper by means of solder, with that resulting from a junction produced by heat alone as in the old method of making Sheffield Plate, two samples were made by Mr. Robert Leach of the Handy & Harman Company.

In the first, a sheet of silver  $\frac{1}{8}$  of an inch thick was placed between two pieces of pure copper each  $\frac{1}{2}$  of an inch thick and 1 inch wide. Two pieces of copper were used so that the junction of the copper and the silver would lie in the center of the sample which would make the preparation of a perfectly flat specimen comparatively easy.

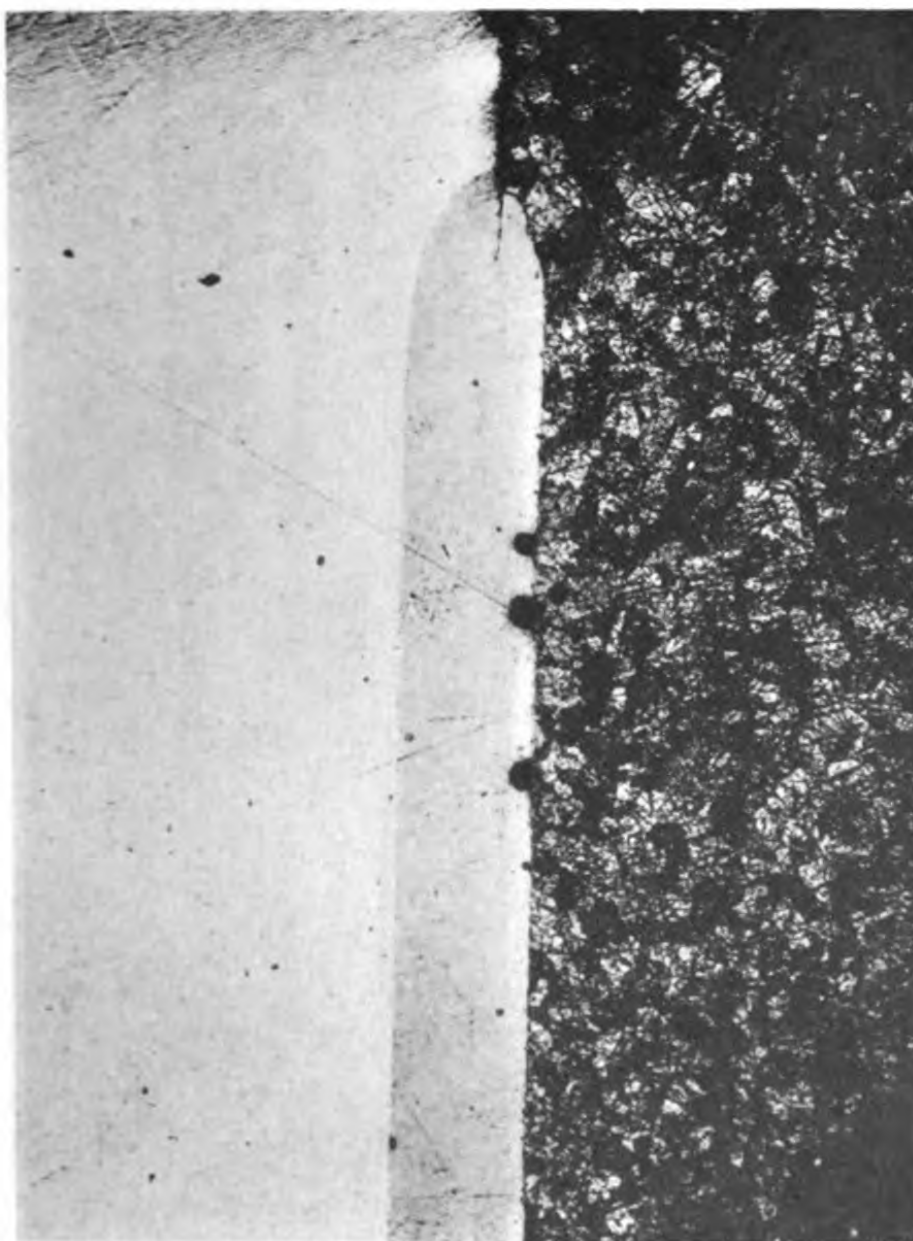
Experiment A was made using silver solder, 72% Ag, 28% Cu. Cross sections about one-half of an inch thick were cut from each, polished and etched with ammonia and hydrogen peroxide. Micrographs with a magnification of 35, 100 and 500 diameters were taken to show details of structure.



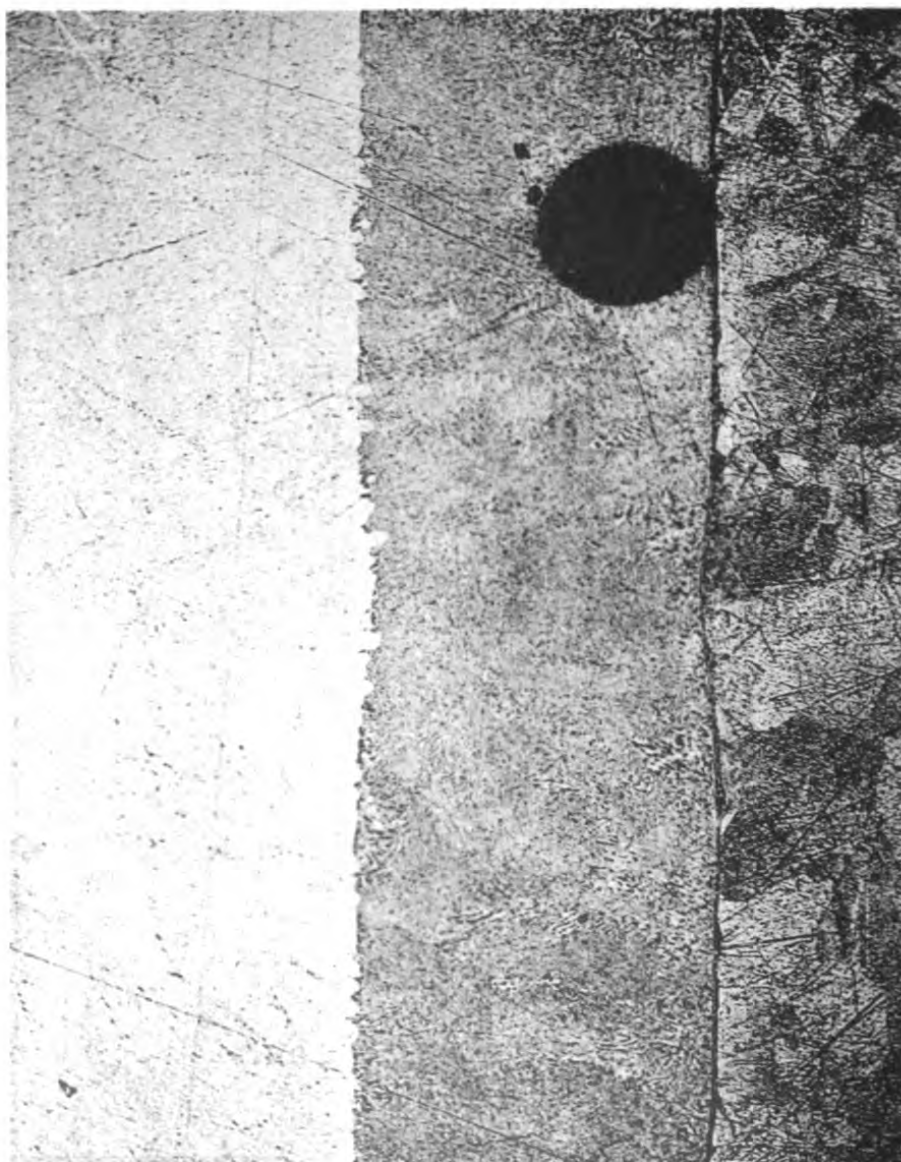
108. EXPERIMENT A. Fig. 1 x 35 at A.  
The band of solder is shown at its lower right joint.



109. EXPERIMENT A. Fig. 2 x 35 at B.  
A continuation of 108. The dark round spots are  
blowholes.

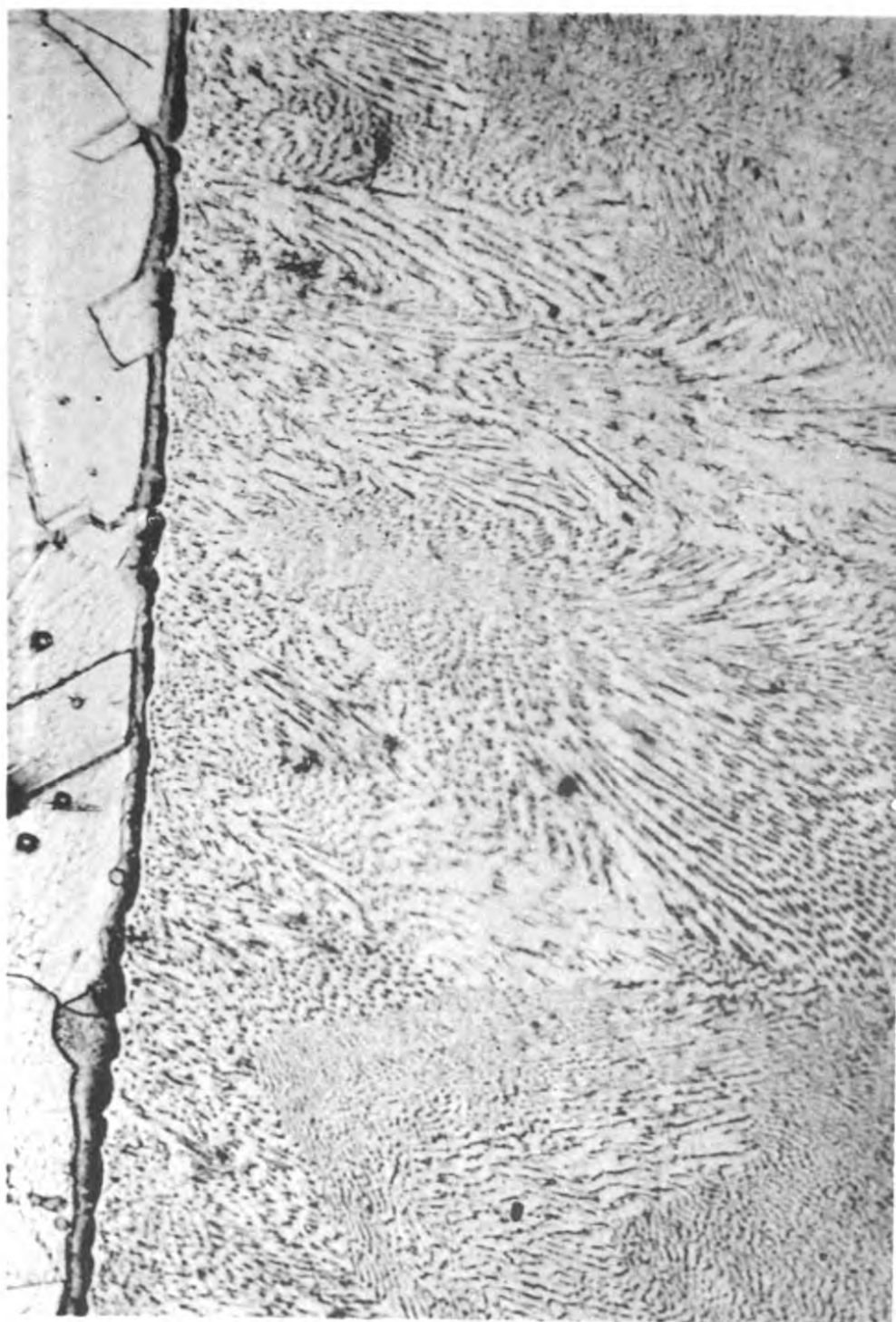


**110. EXPERIMENT A.**                      Fig. 3 at 35 at D.  
A further continuation of 108 and 109, showing  
the upper extremity of the joint.



111. EXPERIMENT A. Fig. 4 x 100 at B (above).  
An enlargement of the right hand joint at B.

112. EXPERIMENT A. Fig. 5 x 500 (opposite).  
The dark ridge between the copper and the eutectic alloy is a solid solution of silver in copper due to diffusion.



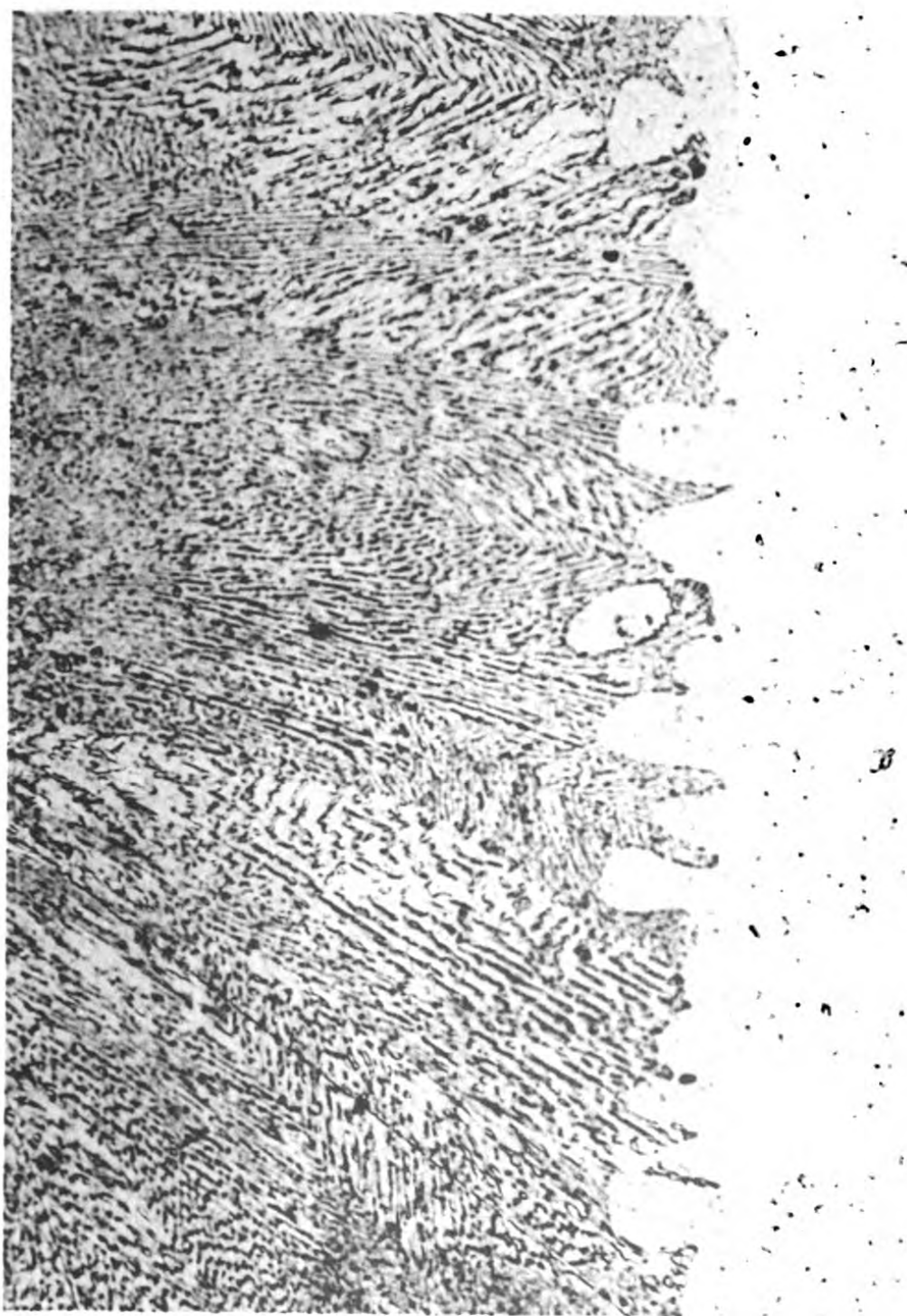


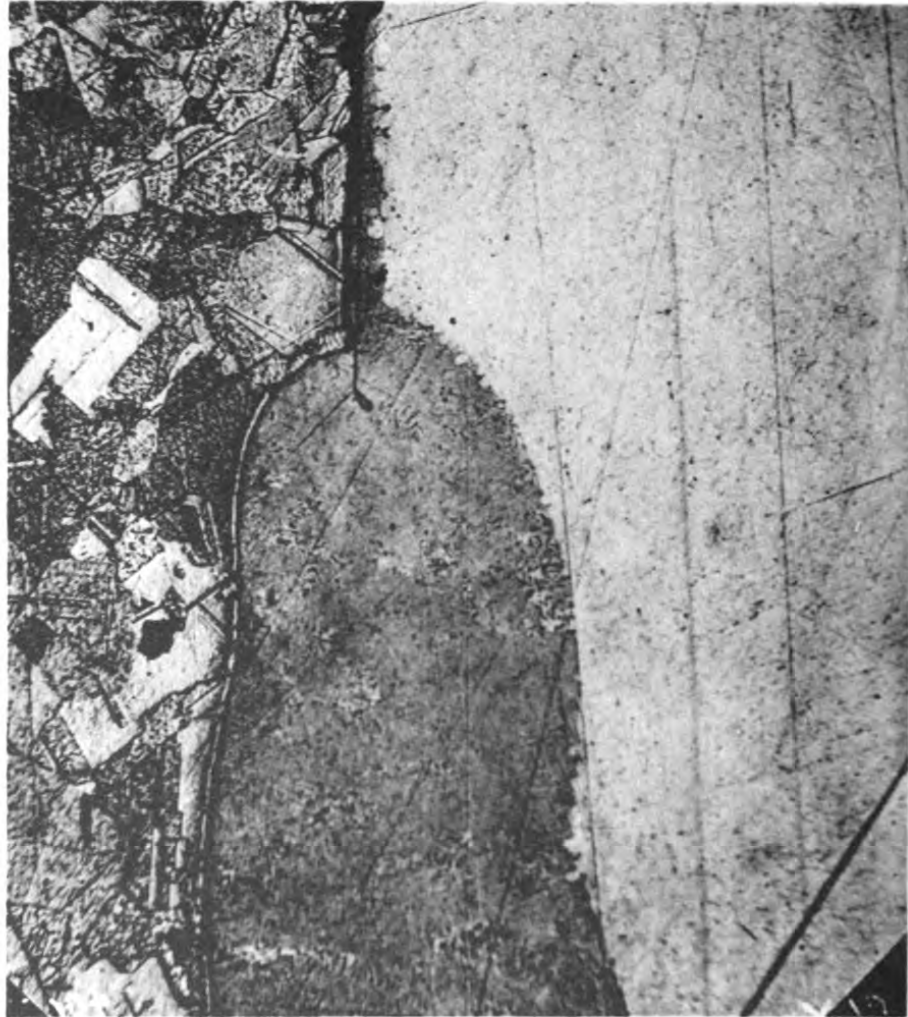


**113. EXPERIMENT A. Fig. 6 x 100 (above).**  
 Typical of the uniform layer of solder.

**114. EXPERIMENT A. Fig. 7 x 500 (opposite).**  
 Shows the silver on the right with an irregular surface due to solution into the liquid solder.

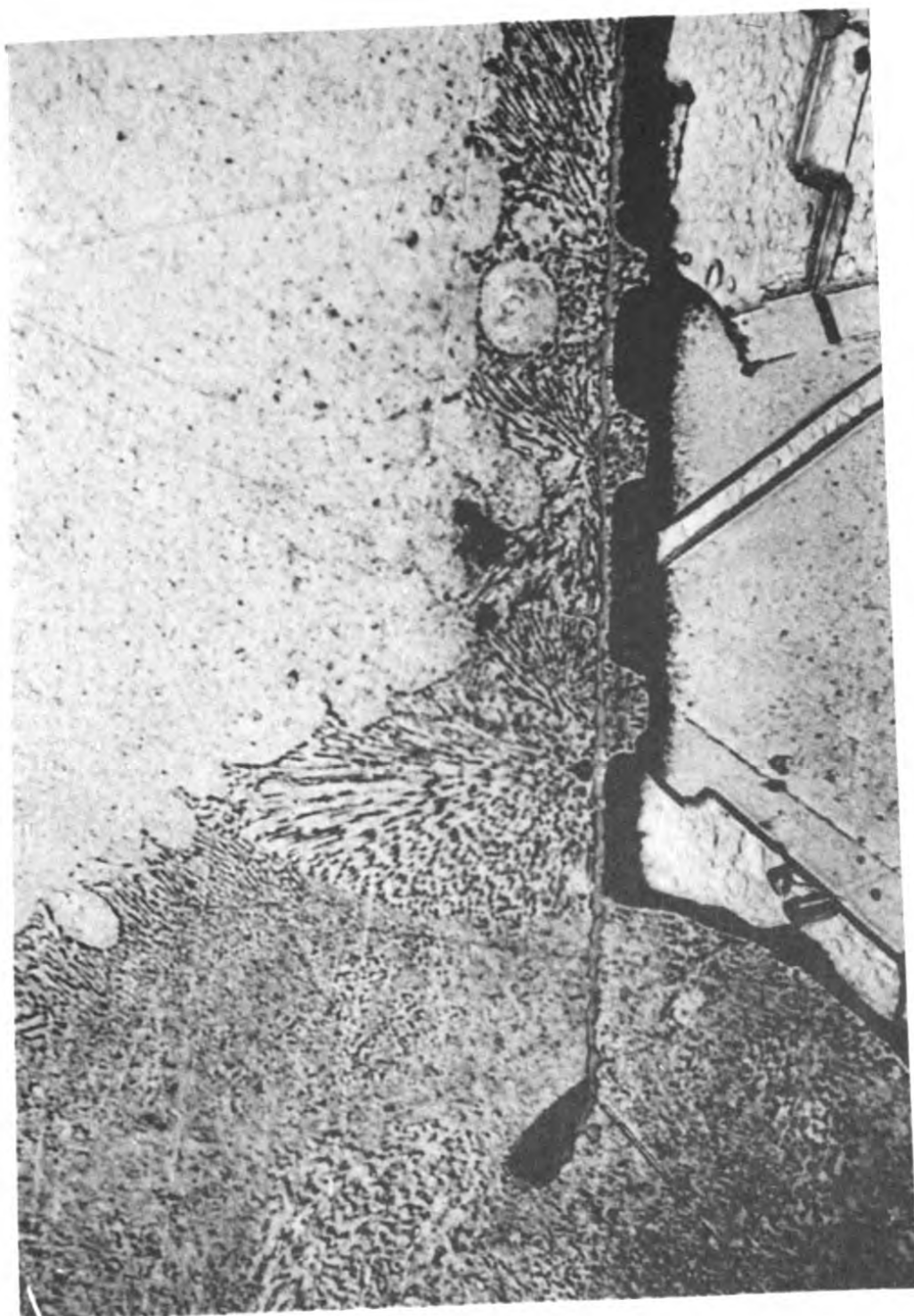


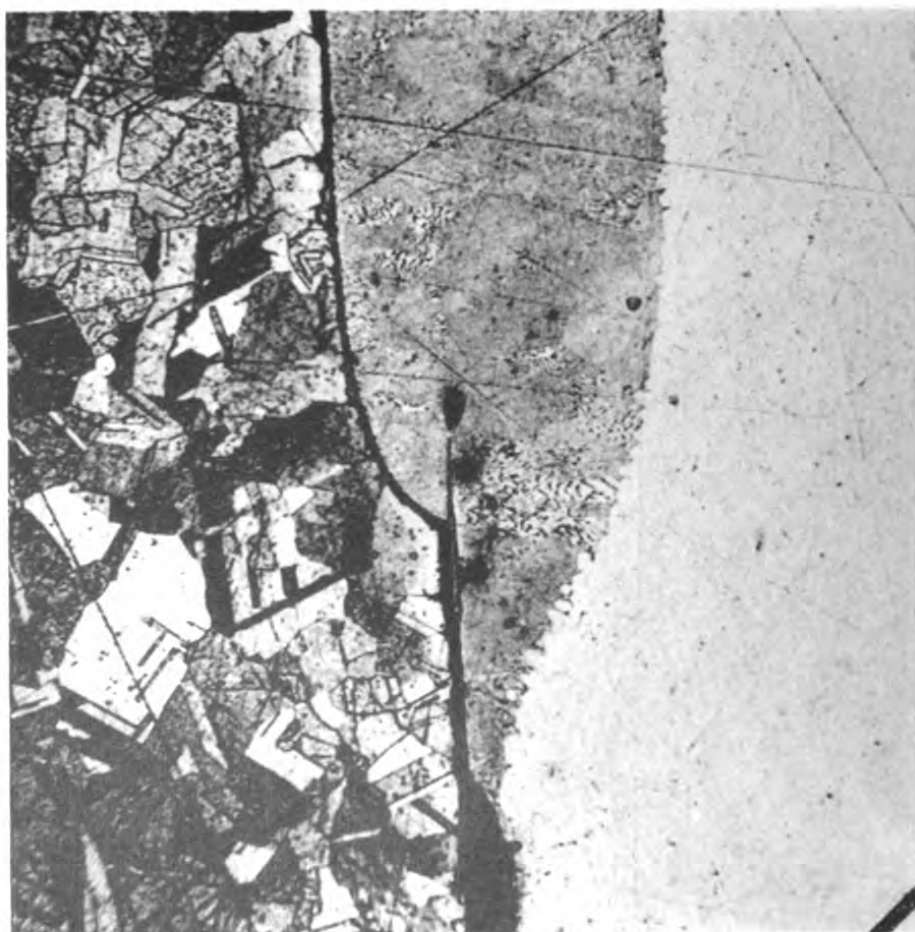




115. EXPERIMENT A. Fig. 8 x 100 at D (above). Shows the left hand join at D, the upper end of the section.

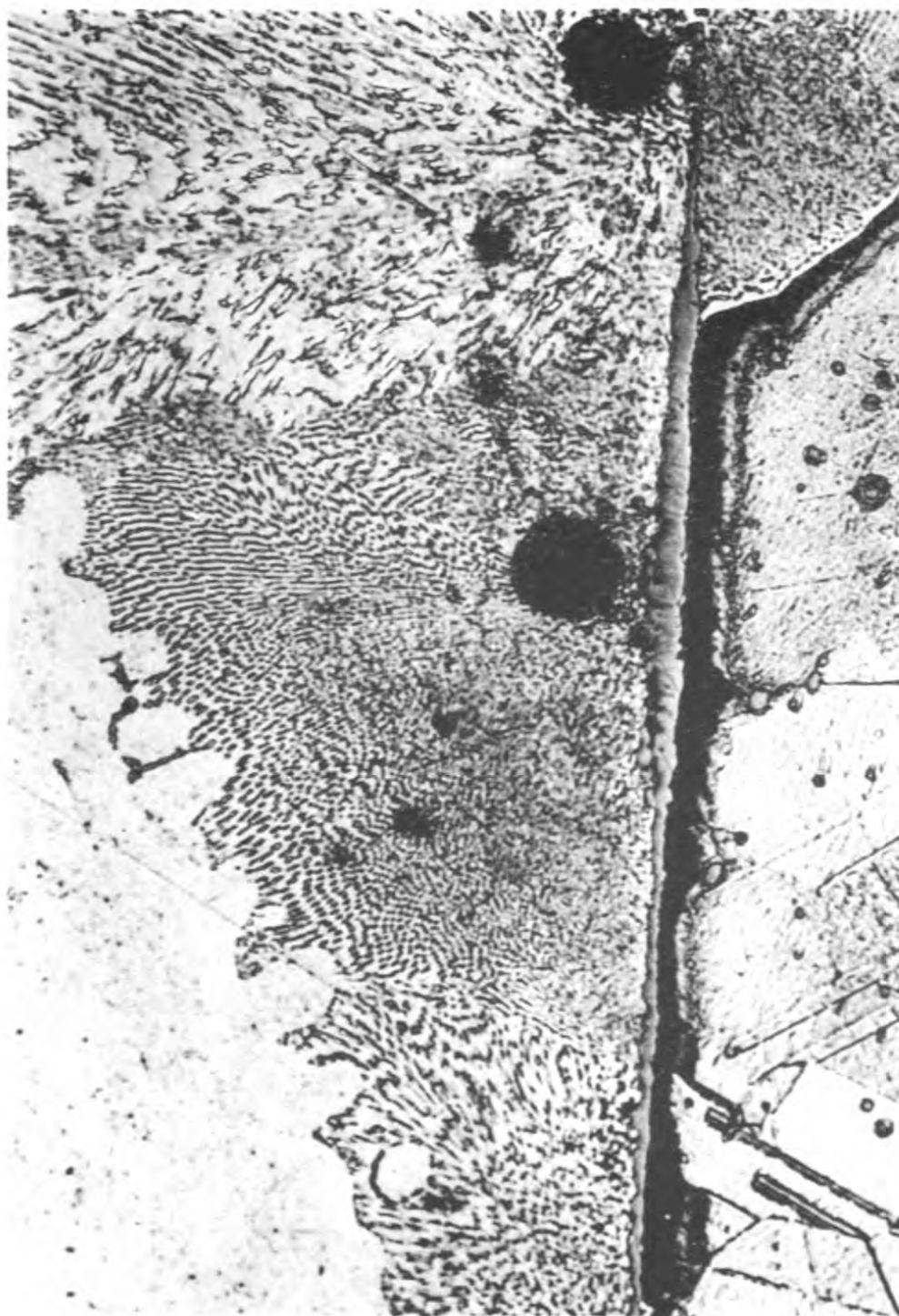
116. EXP. A. Fig. 9 x 500 at D (opposite). An enlargement of 115 (but reversed because taken with an inverted microscope). Again the thin film of copper oxide prevents diffusion and therefore a poor join results.



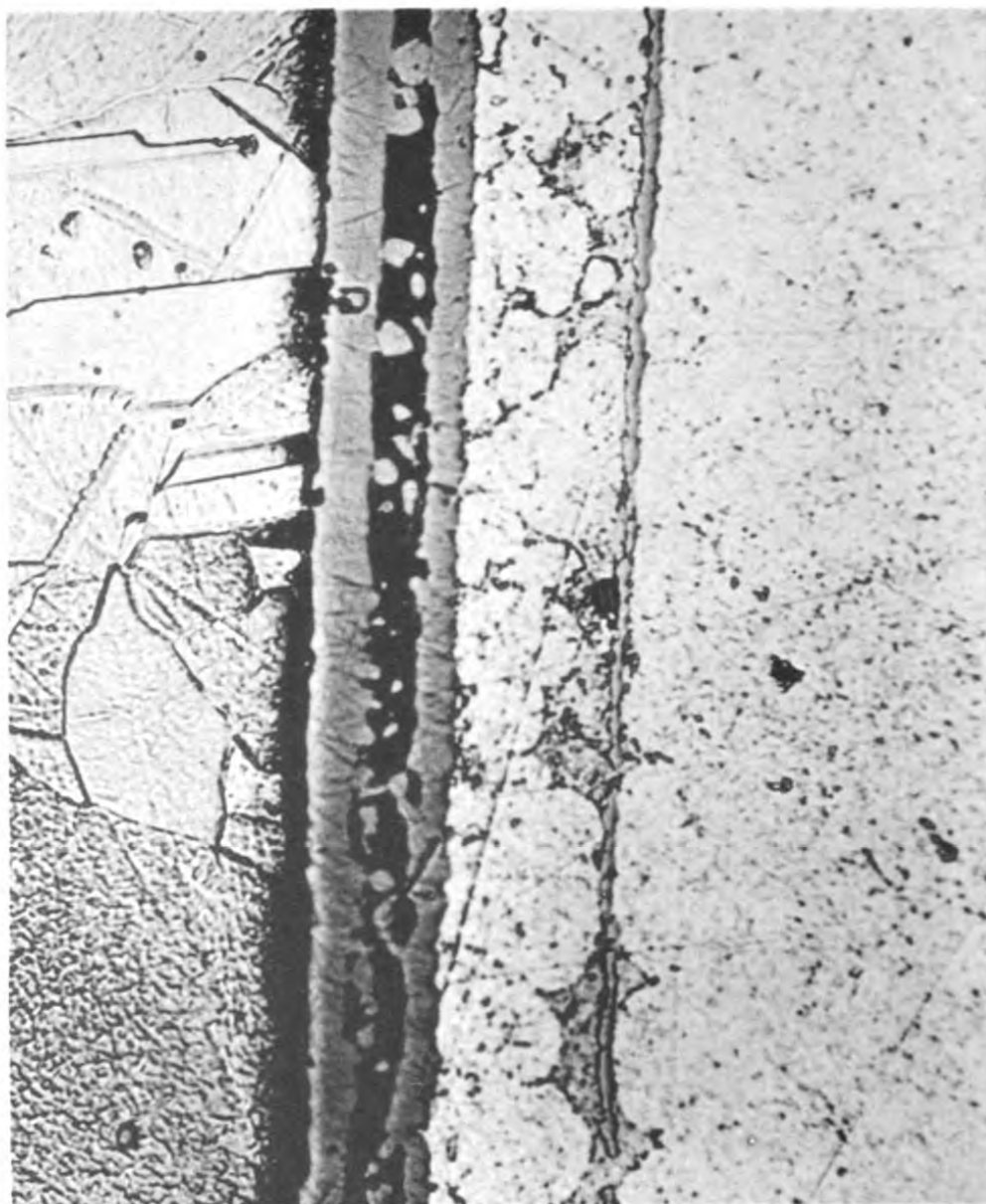


117. EXP. A. Fig. 10 x 100 at A (above). Showing the other end of the join at A. They each show a thin film of copper oxide at the end of the junction which prevented the formation of a good join by stopping diffusion.

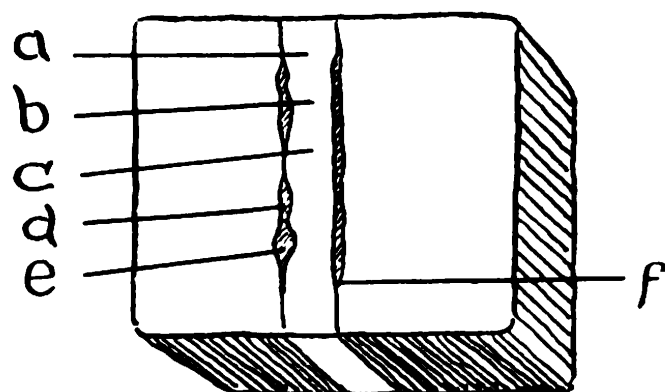
118. EXP. A. Fig. 11 x 500 at A (opposite). An enlargement of 117 (reversed). The copper is separated from the eutectic by a thin band of copper oxide.







119. EXPERIMENT A. Fig. 12 x 500 at A.  
The extreme end of the join. The heavy central  
division is probably a mixture of copper oxide and  
borax which again prevents diffusion.



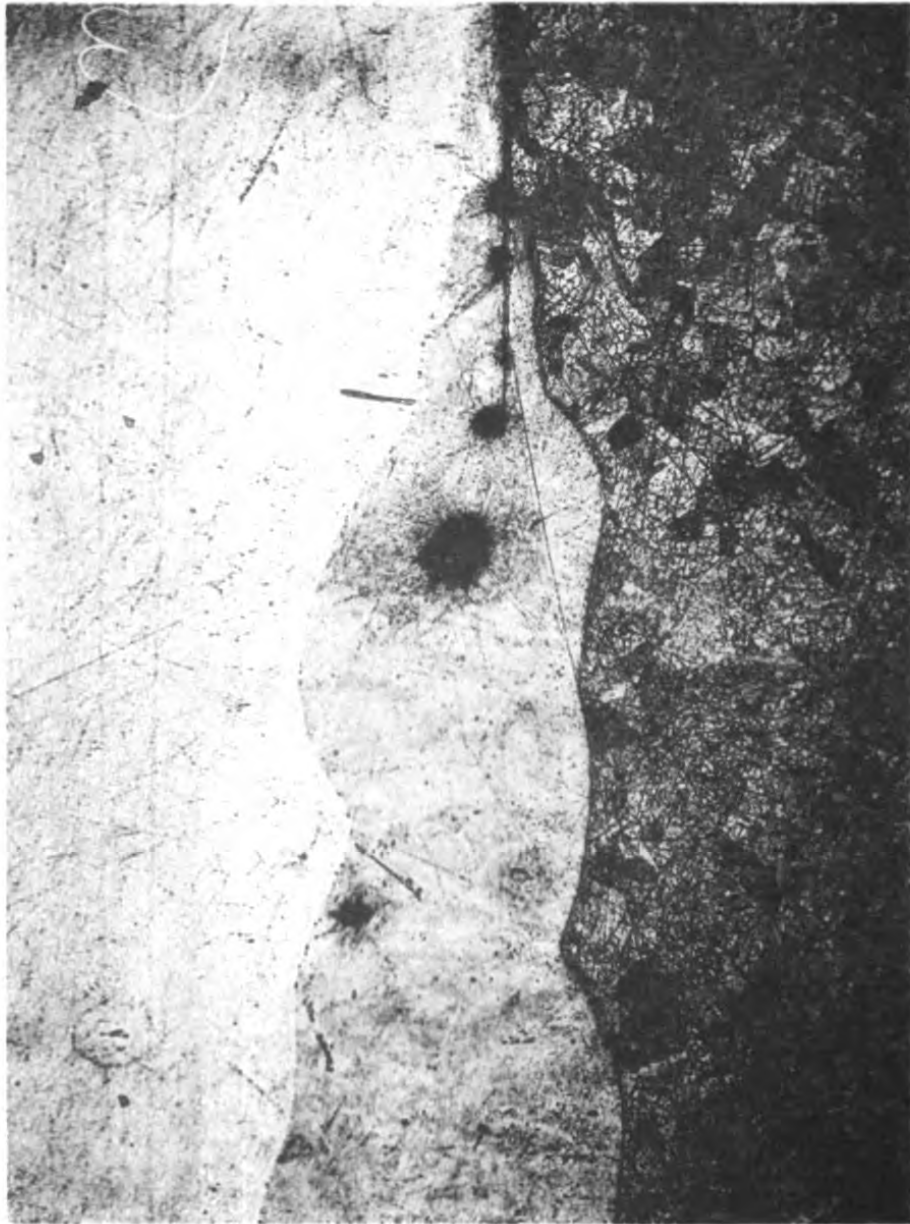
#### 120. EXPERIMENT B; NO SOLDER.

The second experiment or sample was in all respects similar to Experiment A except that no solder was used; instead the pieces of copper with a sheet of silver between them were heated to a temperature of  $785^{\circ}\text{C}$ ., and cooled slowly. Micrographs with a magnification of 35, 100 and 500 diameters show details and permit comparisons with results obtained in the preceding sample.

#### CONCLUSION.

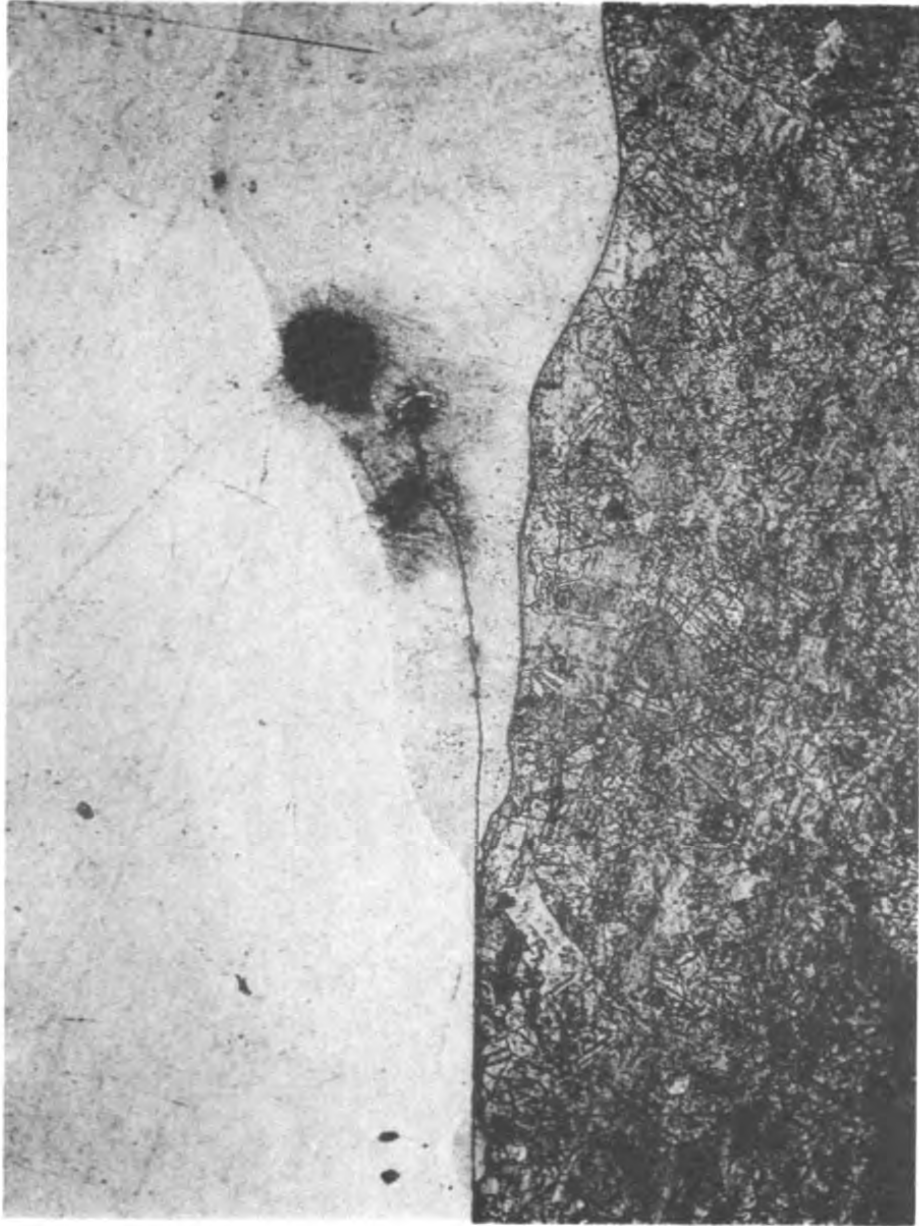
**EXPERIMENT A.** The sample in which silver-solder was used shows marked regularity of the zone of the eutectic alloy.

**EXPERIMENT B.** The sample without solder shows the zone of the eutectic alloy inclined to be irregular in thickness and patchy, with more diffusion of silver in the form of grains and dendrites into the eutectic. This irregularity is undoubtedly due to poorer contact with a resulting film of copper oxide which prevents diffusion and therefore results in a poor join.



**121. EXPERIMENT B.**                      Fig. 1 x 35 at A.  
Near the end of the join; the band of eutectic alloy  
is shown to be very irregular in shape and width.

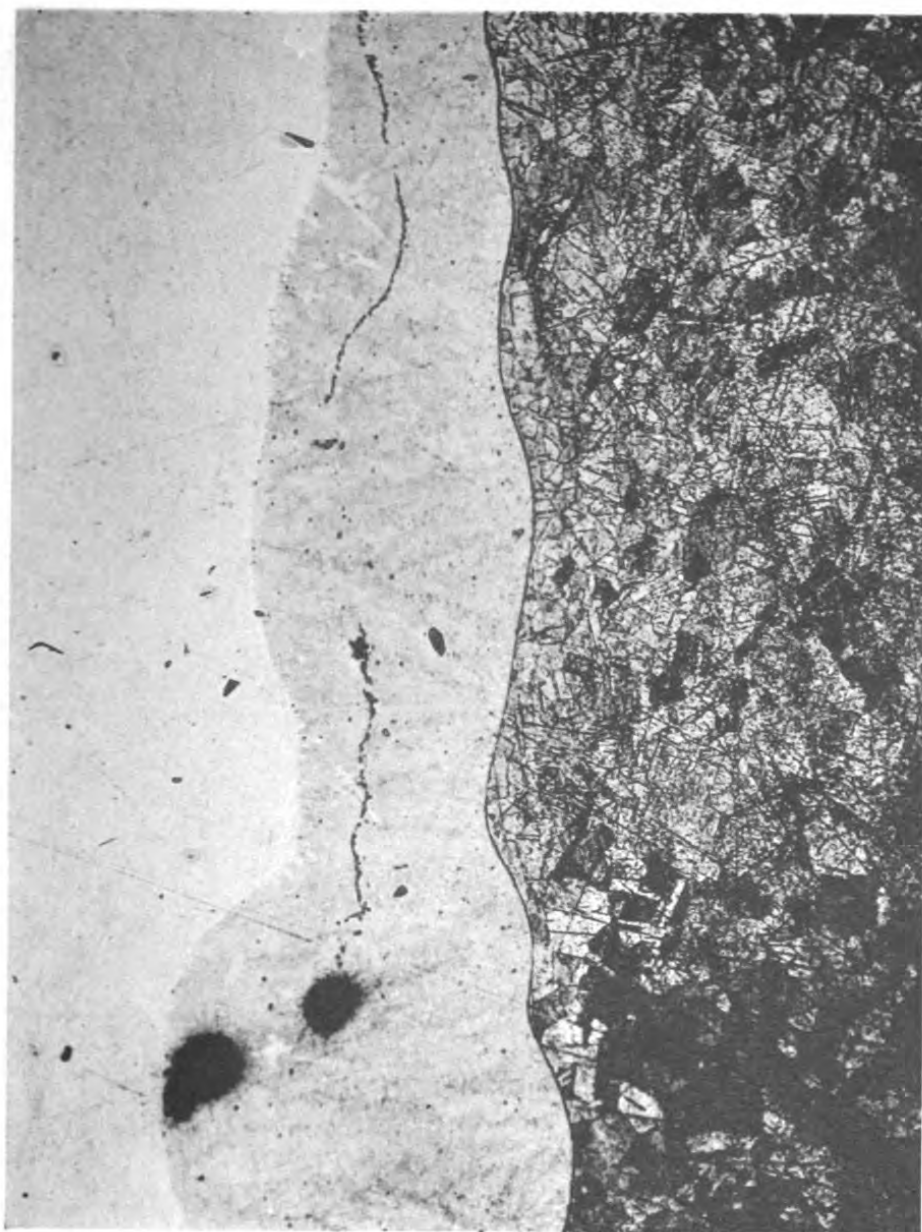




122. EXPERIMENT B. Fig. 2 x 35 at B.  
Almost a continuation of 121. The band of eutec-  
tic has thinned out.



123. EXPERIMENT B. Fig. 3 x 35 at C.  
Shows the band of eutectic alloy appearing once  
.more.



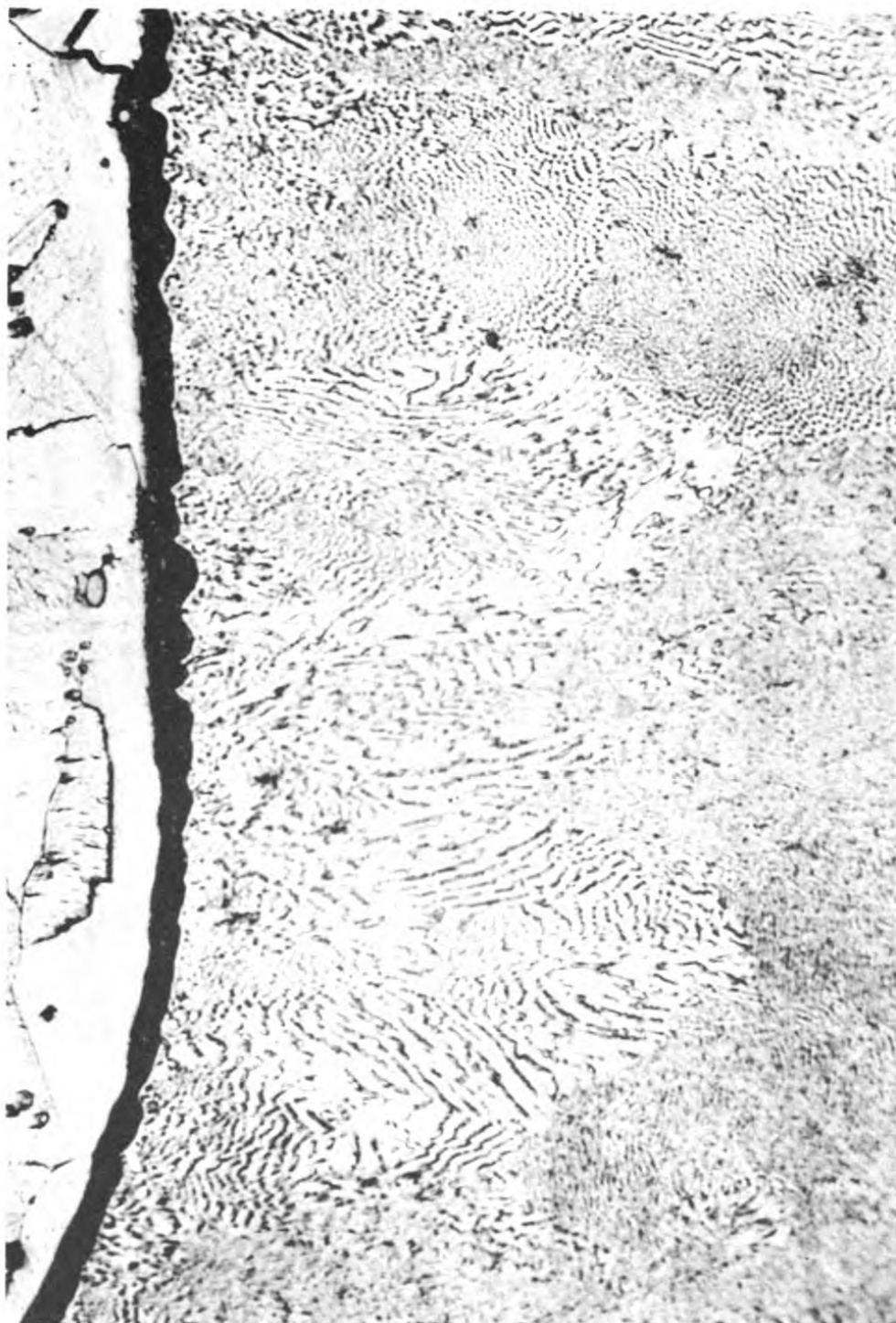
**124. EXPERIMENT B.**  
A continuation of 123.

Fig. 4 x 35 at D.

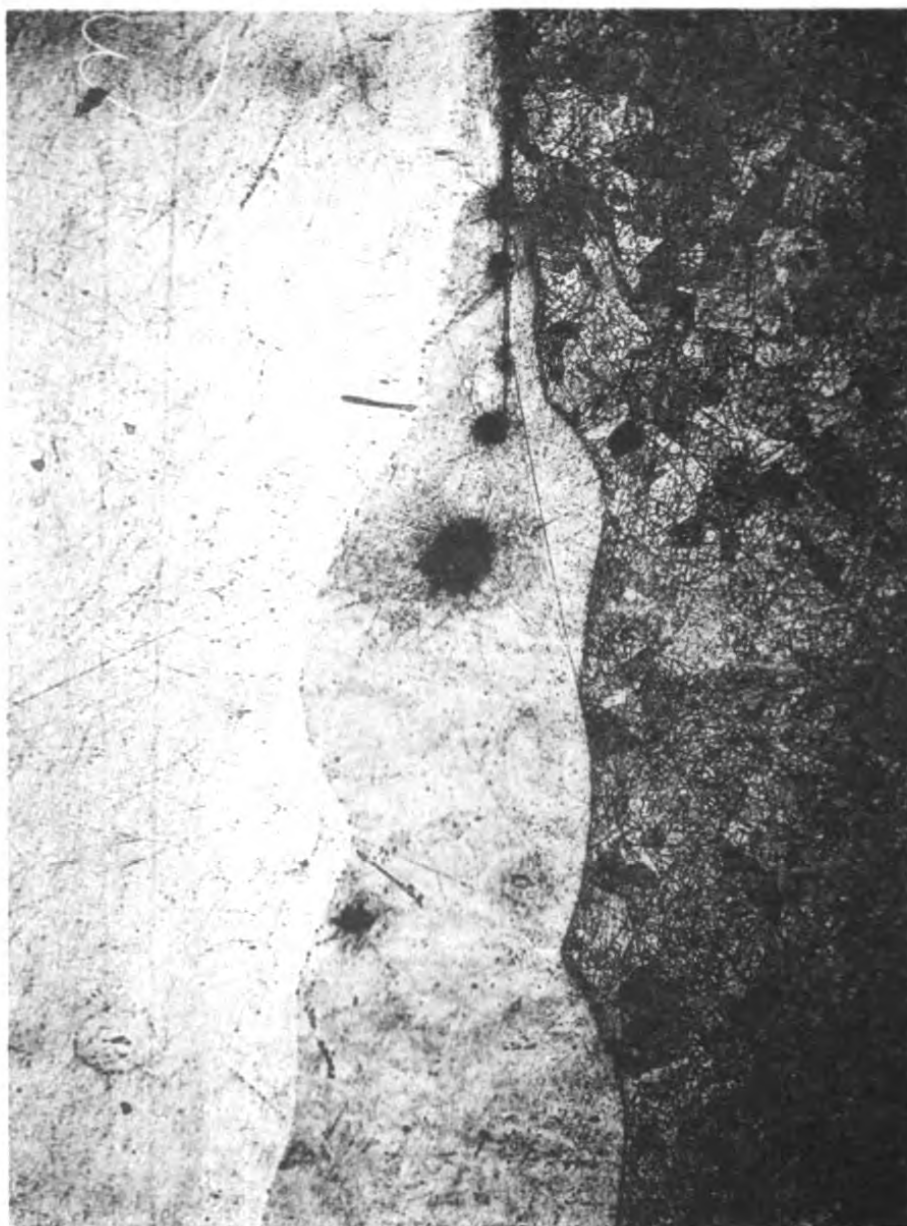


125. EXPERIMENT B. Fig. 5 x 100 (above).  
Shows the disappearance of the eutectic at the top.

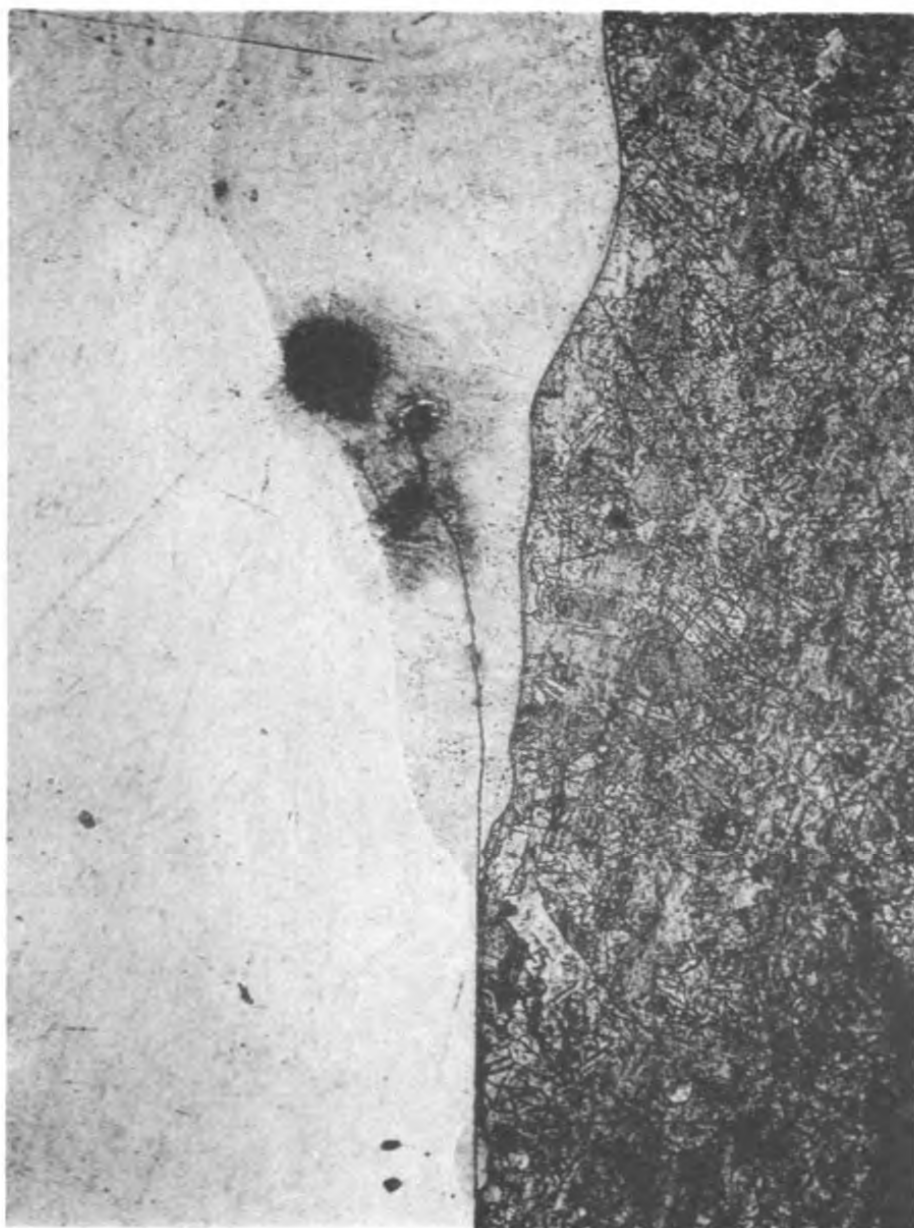
126. EXPERIMENT B. Fig. 6 x 500 (opposite).



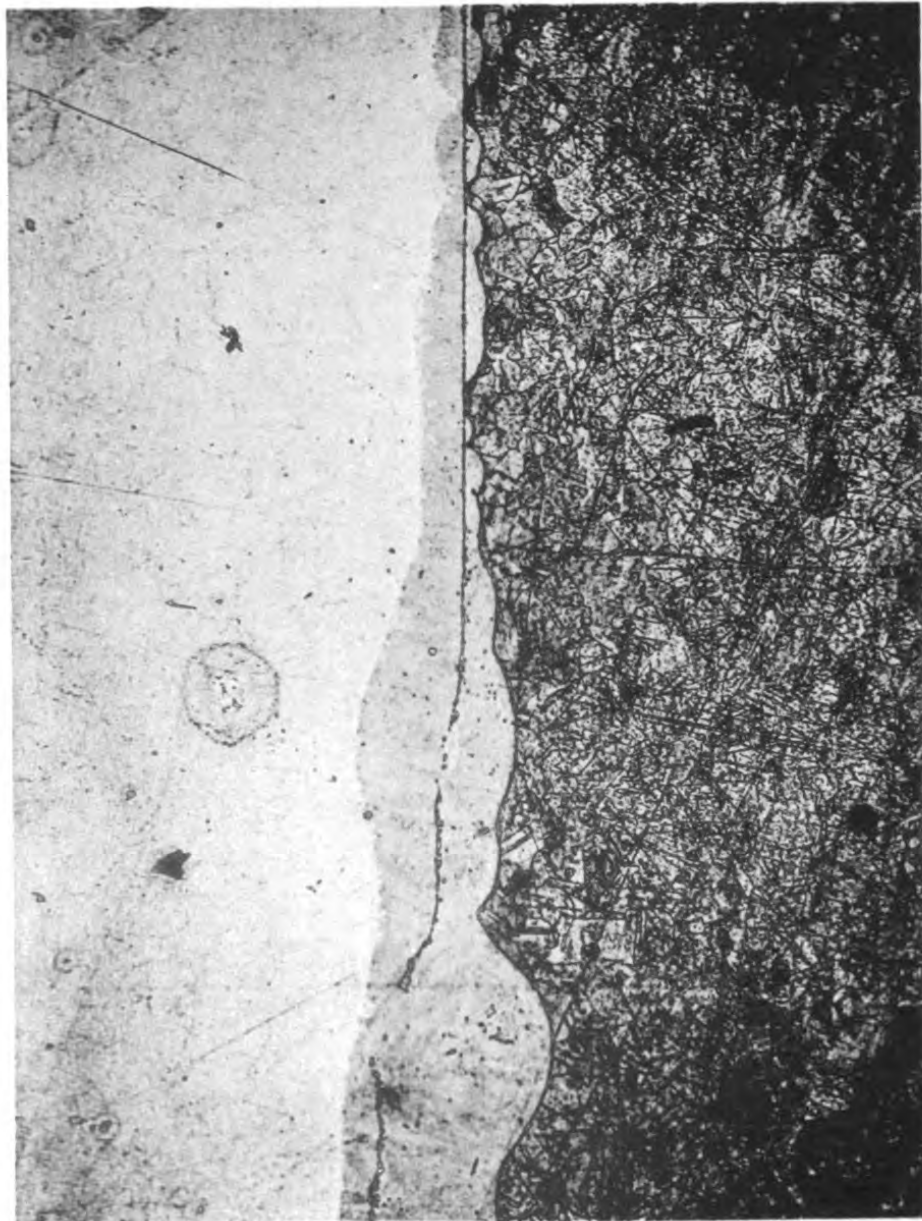




**121. EXPERIMENT B.**                      Fig. 1 x 35 at A.  
Near the end of the join; the band of eutectic alloy  
is shown to be very irregular in shape and width.

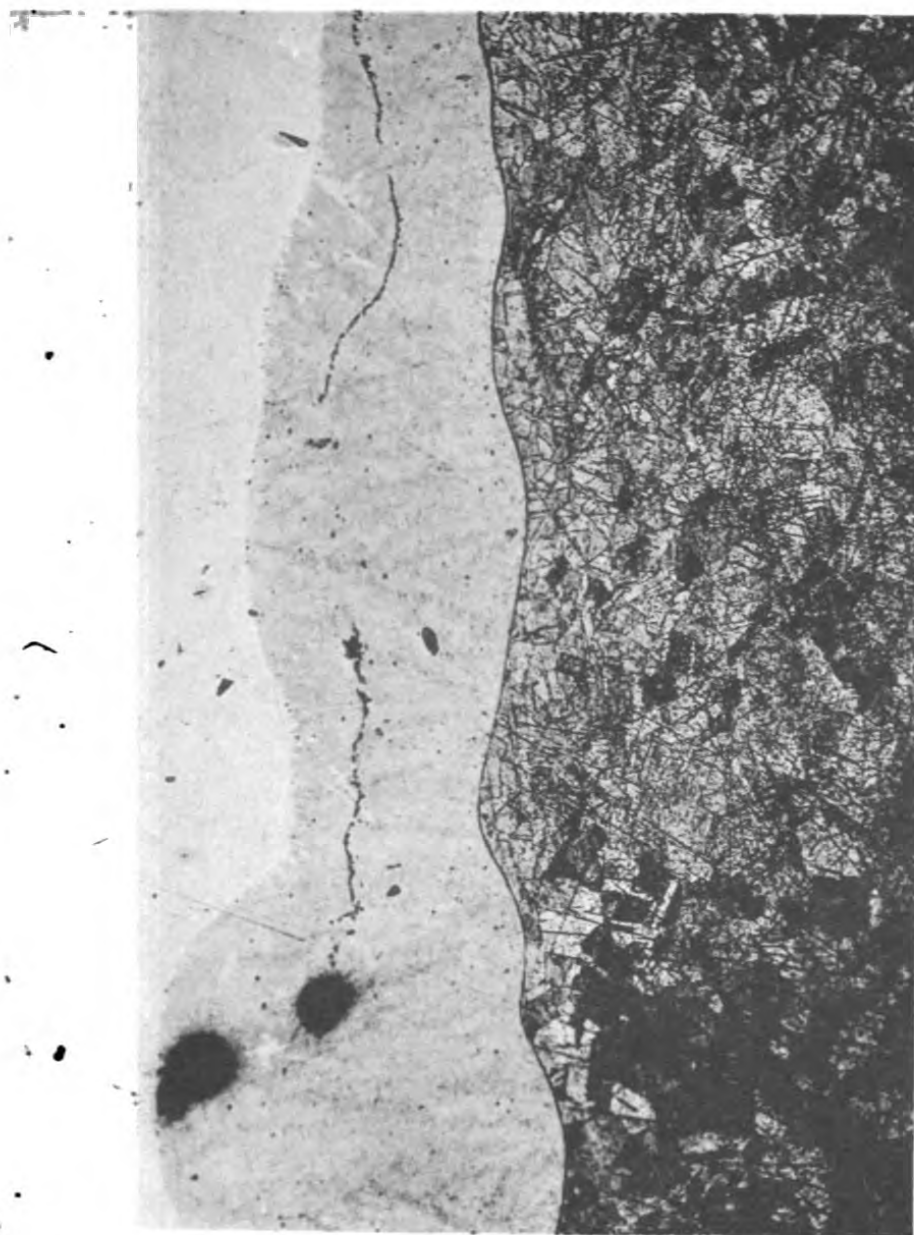


122. EXPERIMENT B. Fig. 2 x 35 at B.  
Almost a continuation of 121. The band of eutec-  
tic has thinned out.



123. EXPERIMENT B. Fig. 3 x 35 at C.  
Shows the band of eutectic alloy appearing once  
.more.





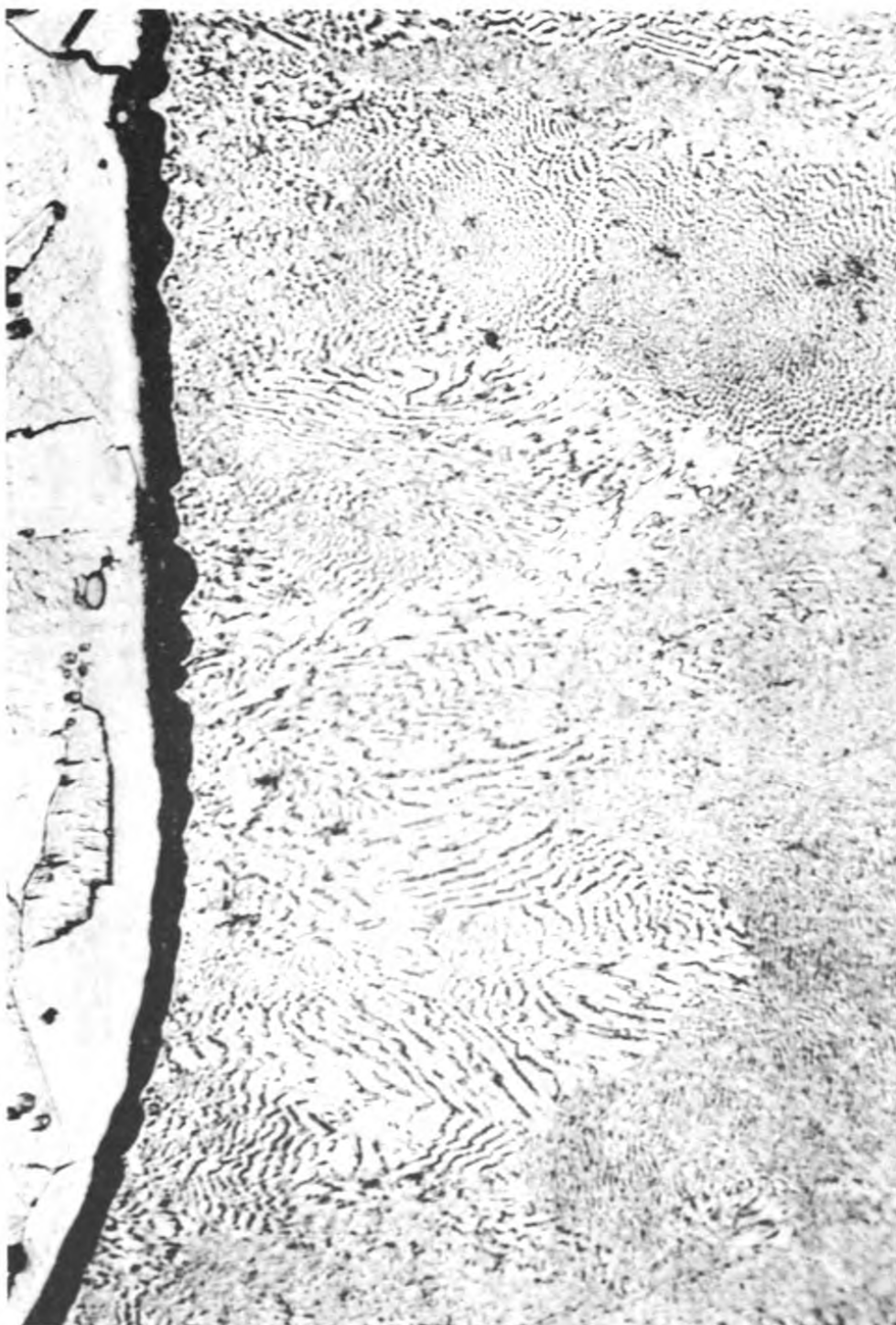
124. EXPERIMENT B.  
A continuation of 123.

Fig. 4 x 35 at D.



125. EXPERIMENT B. Fig. 5 x 100 (above).  
Shows the disappearance of the eutectic at the top.

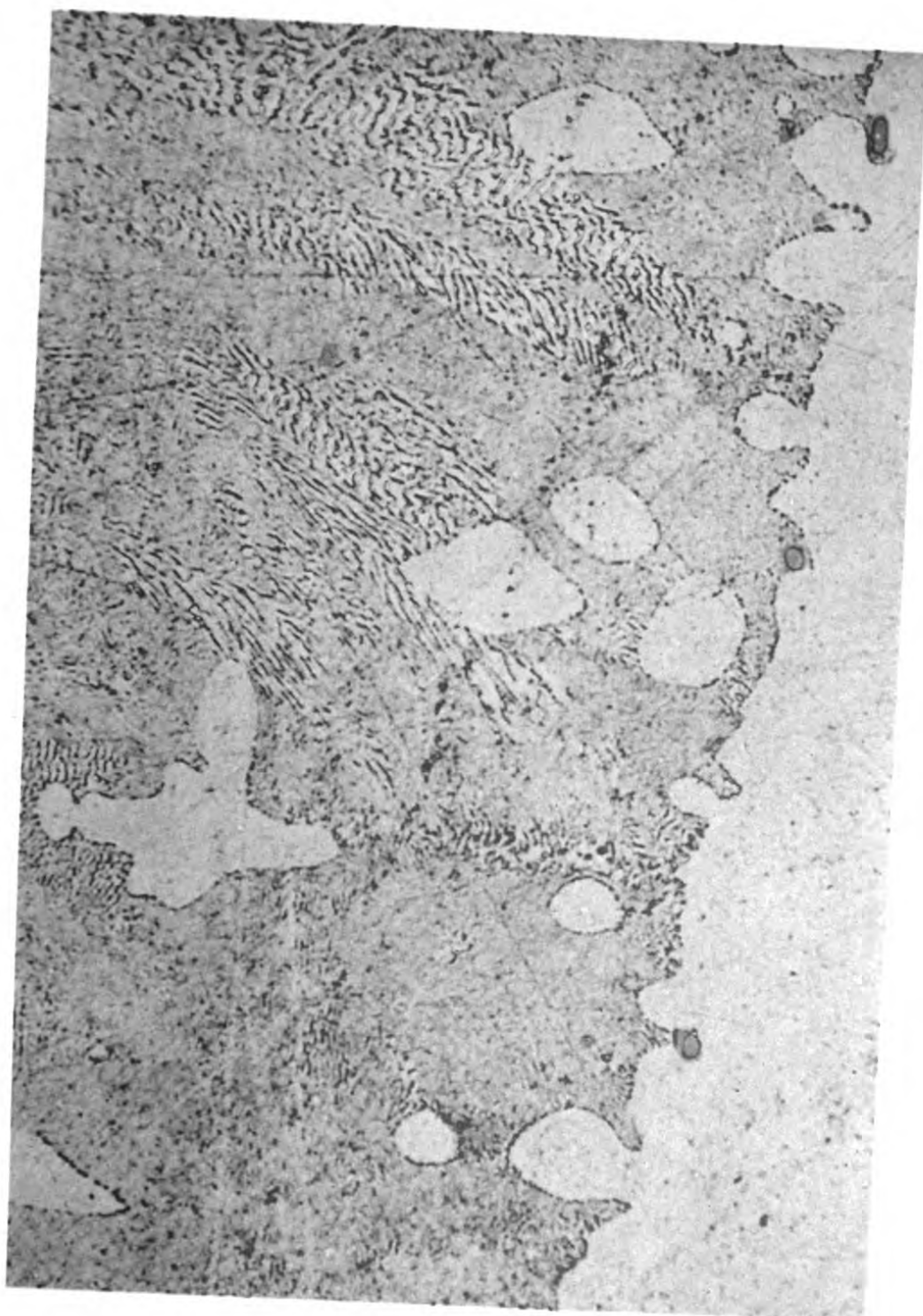
126. EXPERIMENT B. Fig. 6 x 500 (opposite).





**127. EXPERIMENT B. Fig. 7 x 100 at D (above).** Illustrates the irregularity of the thickness of the eutectic band.

**128. EXPERIMENT B. Fig. 8 x 500 (opposite).** The silver on the right, diffuses down into the eutectic. Compared with 112 and 114 there is a marked difference as regards outline and amount of silver crystals diffusing into the eutectic alloy.

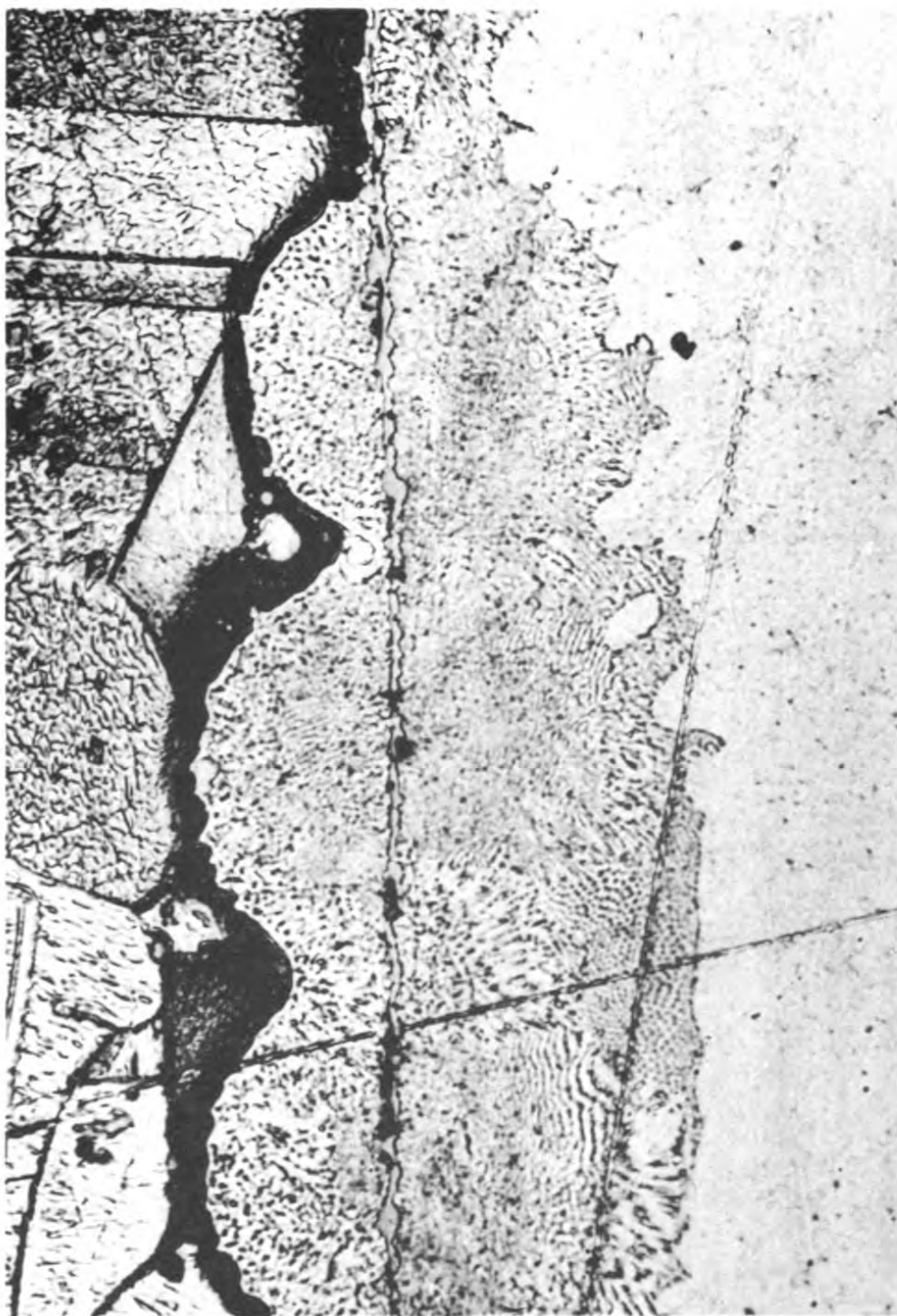


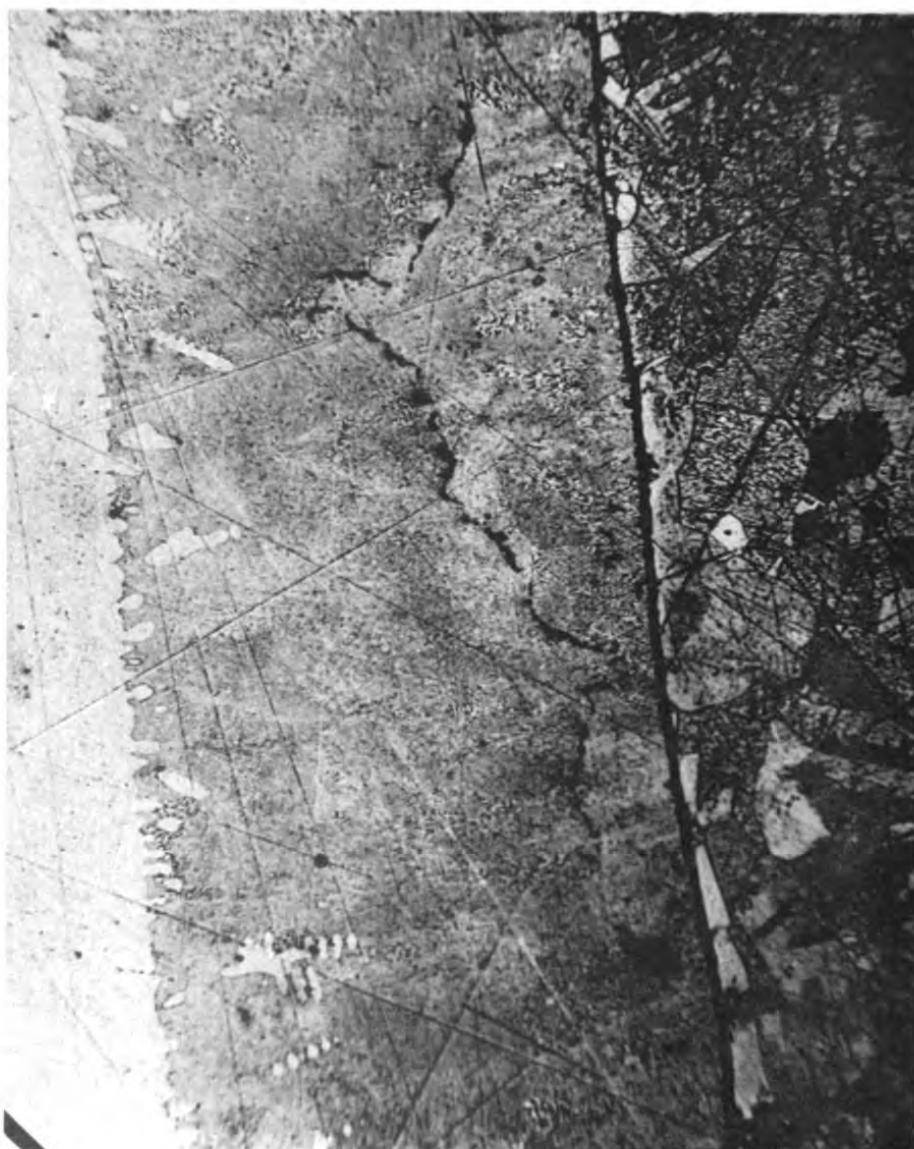




**129. EXP. B.** Fig. 9 x 100 at A (above). Shows an enlargement of the left hand join of 121 at A. The outline of the copper as well as the silver is irregular, while on the silver side small crystals of silver grow down into the eutectic. The dark spots are blowholes.

**130. EXPERIMENT B.** Fig. 10 x 500 (opposite). Illustrating the poor diffusion by the irregularity of the eutectic zone.





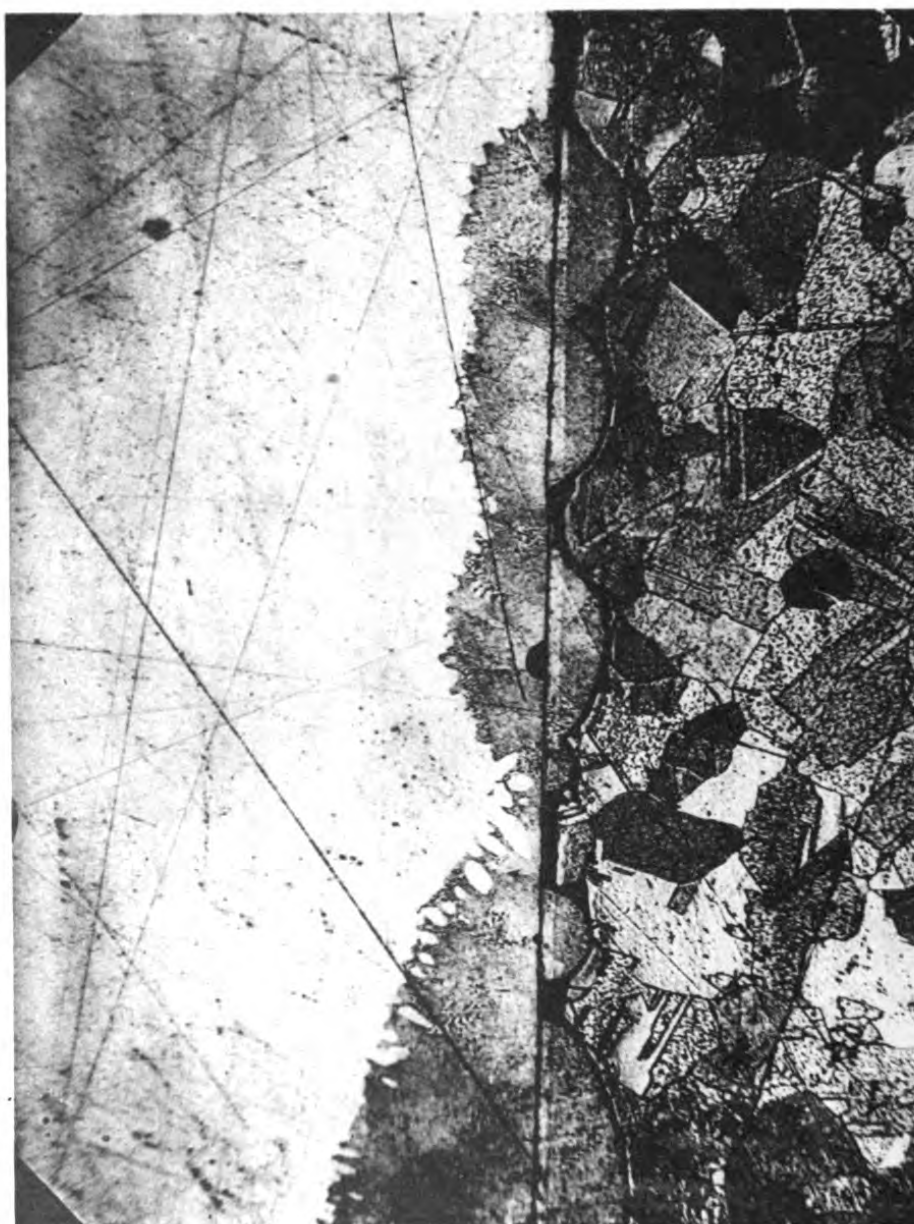
131. EXPERIMENT B. Fig. 11 x 100 (above).

132. EXPERIMENT B. Fig. 12 x 500 (opposite).

In the center is a thin film of copper oxide due to the poor contact of the two surfaces of the pure metals originally.







133. EXPERIMENT B. Fig. 13 x 100 (above).  
Showing the irregularity of the eutectic band.

134. EXPERIMENT B. Fig. 14 x 500 (opposite).  
Similar to 130 and 132.





135. EXPERIMENT B.

Fig. 15 x 100.

Illustrates the irregularity in the thickness of the eutectic band and is a continuation of 124.

## SUMMARY.

The above examination would indicate as follows:

- No. 1. Use of foil and silver solder, apparently twice applied.
- No. 2. Dipping; or sprinkling copper core with powdered alloy and heating strongly till the alloy "ran."
- No. 3. Sheffield plate method.
- No. 4. Sheffield plate method.
- No. 5. Sheffield plate method or use of solder.
- No. 6. Probably used silver solder.
- No. 7. Probably Sheffield plate method; possibly dipping.
- No. 8. Same as 2.
- No. 9. Probably used silver solder.
- No. 10. Probably Sheffield plate method.
- No. 11. Same as 2 and 8.
- No. 12. Core apparently pure silver.
- No. 13. Experimental piece with tin used for solder.

Reviewing the structures found in the above examination we find most of the coins were made

by covering the copper cores with silver sheet, cupped and overlapping, the whole being joined by a relatively fusible silver copper alloy, in most cases the eutectic alloy which melts at  $778^{\circ}$  C.

Others were apparently made by sprinkling the copper core with powdered silver or silver copper alloy and heating strongly till the powder melted and "ran", or by dipping the copper core in liquid eutectic alloy or one rather richer in silver.

The joining of the silver coating to the copper core to produce such structures can be done in two ways. The first, by using silver solder, would explain all of the structures found but not their marked irregularities. The second, in which no solder is used, is the same as that discovered by Bolsover for making Sheffield plate, in which the two metals are heated in contact to the point where a film of the eutectic alloy is produced (i. e.  $778^{\circ}$  C.). This gives rise usually to an irregular layer of the eutectic alloy such as occurs in most of the samples above. If we assume that silver solder was not known down to the time of Pliny, for he does not mention it, then it would seem that the Sheffield plate or diffusion method must have been used by the ancients, where the copper core is covered with sheet silver.

## APPENDIX.

On the Constitution and Structure of the Alloys  
of Copper and Silver.

The constitutional diagram of the silver copper series of alloys is shown in Fig. 1 with temperature in the vertical scale and composition in the horizontal.

The curve AE is the freezing-point curve of silver which is lowered as the copper in the alloy increases. The curve CE is the freezing-point curve of the copper which is lowered as the silver in the alloy increases, for the addition of copper to silver or of silver to copper depresses the freezing-point of the metals.

These two curves intersect at the point E which is the alloy with the lowest freezing point of the series. It contains 72% of silver, 28% of copper and melts and freezes at the same temperature 778° C. This is the eutectic alloy and is a mechanical mixture of copper and silver.

Any alloy with less than 28% copper consists of grains and dendrites of silver surrounded by a matrix of the eutectic while any alloy with more than 28% of copper consists of grains and dendrites of copper in a matrix of the eutectic.

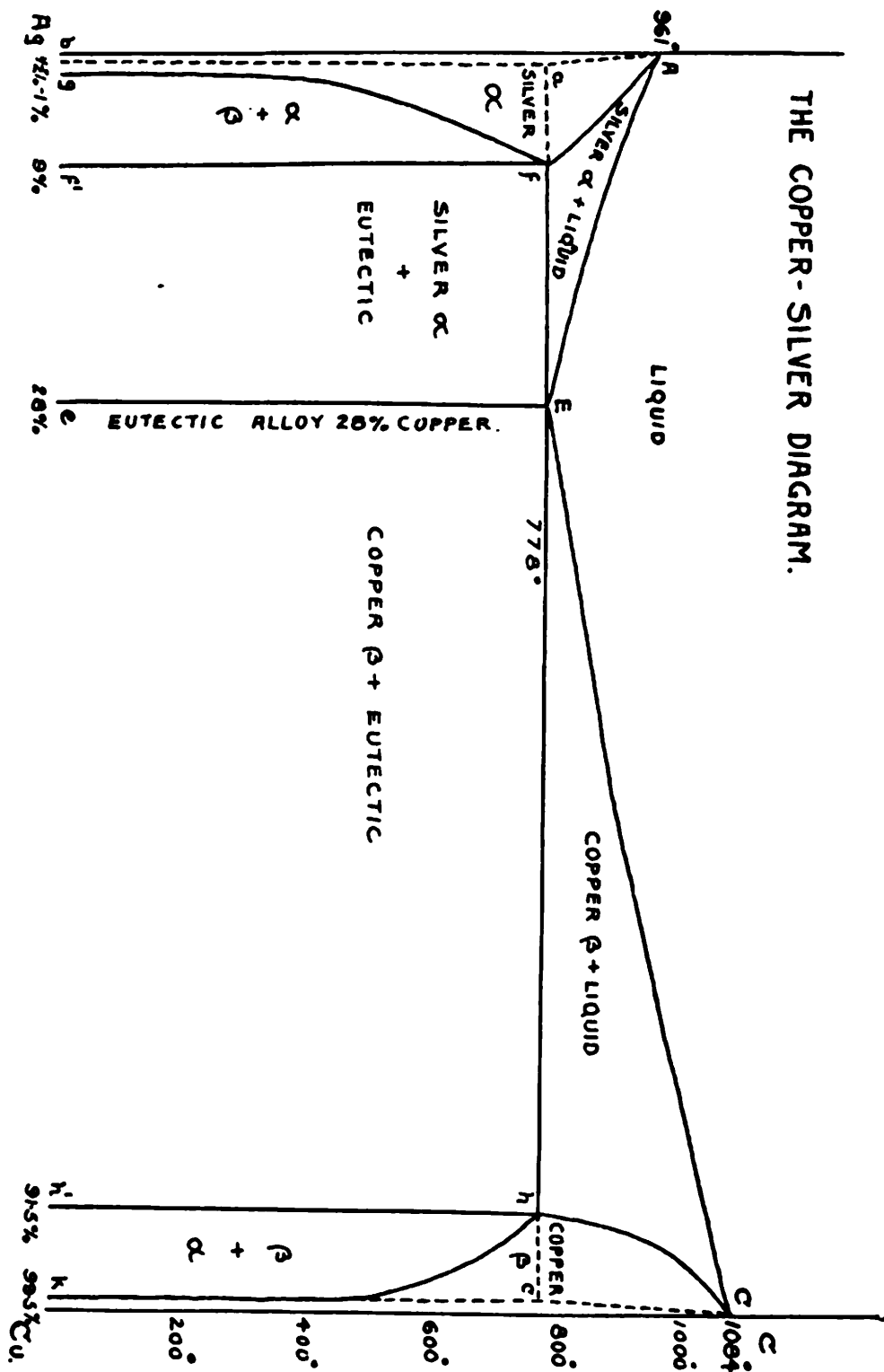
In alloys cooled at normal rate in the air if more than  $\frac{1}{2}\%$  of copper is present we find the

eutectic under the microscope, while if more than  $\frac{1}{2}\%$  silver is present the same thing happens. In other words, between  $\frac{1}{2}$  and  $99\frac{1}{2}\%$  of copper there is more or less eutectic present in the solid alloy. The end of freezing or the beginning of melting is shown by the curves AaEcC. From the above an air-cooled alloy consisting of 50% silver dendrites and 50% of eutectic ought to contain  $28 + \frac{1}{2}\%$  of copper divided by 2 or  $14\frac{1}{4}\%$  copper, for the silver crystals should contain  $\frac{1}{2}\%$  of copper in solid solution and the eutectic contain 28% of copper. The same applies to the copper-rich alloys.

But these air-cooled or cast alloys are not in a state of equilibrium because the silver crystals or dendrites are not saturated with copper, neither are the copper crystals saturated with silver. This state of equilibrium is only brought about by very slow cooling or, more rapidly, by annealing at high temperatures near the melting point. When equilibrium is reached, the silver or copper crystals are saturated with copper or silver, as the case may be. The saturation point, however, varies with the temperature; the higher the temperature the greater the solubility in the solid state, as shown by the solubility curves *fg* and *hk*, the former being the solid solubility curve of copper in silver and the latter that of silver in copper. These have not yet been determined with



THE COPPER-SILVER DIAGRAM.



extreme accuracy, but are approximately as given. The point  $g$  is about 1% copper while  $f$  is probably just over 9% copper. Hence our 50% silver dendrites, 50% eutectic alloy does not have only  $\frac{1}{2}\%$  Cu in solid solution in the silver. In the first place, the original silver crystals have a composition lying somewhere between  $a$  and  $f$ , say 5+ % of copper. They are not homogeneous, but have cores richer in silver. As the temperature falls, these crystals of silver become saturated with copper at the solubility curve  $fg$  and copper begins to separate out, mainly at the crystal boundaries. At normal temperature the silver dendrites have only 1% of copper in solid solution. Hence our alloy really consists of silver dendrites and grains, surrounded by envelopes of precipitated copper in a matrix of the eutectic. In the same way the copper and silver of the eutectic mixture contained  $8\frac{1}{2}\%$  and 9% of the other in solid solution ( $h$  and  $f$  percent) at the freezing point  $778^\circ$  C. but at normal temperature they contain  $\frac{1}{2}\%$  and 1% respectively ( $k$  and  $g$  percent) due to precipitation of the excess over and above that shown by the solubility curves  $hk$  and  $fg$ . For example, sterling silver 925 fine (92.5% of silver, 7.5% of copper) at ordinary temperatures consists of grains of silver with about 1% of copper in solid solution, the excess copper being found as tiny flakes precipitated in the cleavage

planes and at the boundaries of the silver crystals. This copper, of course, is saturated with silver. On annealing at temperatures about  $750^{\circ}$  C. above the solubility curve *gf*, the copper goes into solution in the silver crystals and we have a homogeneous alloy, a solid solution of copper in silver, assuming that *f* is 9% or a trifle more. While quenching in water from this temperature does not prevent the copper from precipitating again, the flakes and particles of copper occur in very much smaller size than in the case of the slowly cooled alloy, in fact they are submicroscopic and can only be shown by X-ray methods, and hence the color is improved by quenching and the metal does not discolor so rapidly. For the same reason standard silver which contains 10% of copper (900 fine) has a much poorer color than sterling silver and discolours more quickly, even when quenched for at  $750^{\circ}$  C. the solubility is only 8% of copper, leaving 2% undissolved. The greater the copper content the more readily does silver corrode as shown by the new silver coinage of Great Britain which is only 50% silver (500 fine).

Just as in the lead-tin series the eutectic alloy with 63% of tin melting at  $182^{\circ}$  C. (tin solder), can be used as a solder for lead or tin whose melting points are  $327^{\circ}$  C. and  $232^{\circ}$  C. respectively, so the eutectic alloy of silver and copper with

72% silver and melting at 778° C. makes an excellent solder for silver or copper, whose melting points are 961° C. and 1084° C. respectively. Modern silver solders contain, in addition, varying amounts of zinc which lowers the melting point and tends to keep the white color.

It is generally believed that the ancient Greeks were ignorant of the art of soldering, while the Romans were familiar with soft soldering but not with silver soldering which was invented in the middle ages by melting together silver and copper. In this regard, Theophilus in his *De Diversis Artibus* (late in the 11th Century) says of silver solder “. . . weigh two parts of pure silver and a third part of copper and mix, and finely rasp into a clean vessel and put this in a quill. Take winestone and burn it till no vapor comes off. Grind in a copper vessel with water and salt until it is as thick as lees; with a thin piece of wood you anoint the pieces to be soldered . . .”. At a later date silver solder was made by melting together silver and brass.

That the ancients were acquainted with pure silver soldering at least 300 B. C. is shown by some of the coins in the above examination, assuming these plated coins were contemporaneous with the genuine silver ones, which undoubtedly they were, as vouched for by Mr. Newell.

That they were well aware of the process of joining silver to copper without solder is also shown by some of these coins. In other words, when Bolsover discovered or invented the method of making Sheffield plate, it was truly one of the lost arts of the ancients.

#### LITERATURE OF PLATED COINS.

In 1929 Kenneth C. Bailey, Fellow of Trinity College, Dublin, published "The Elder Pliny's Chapters on Chemical Subjects, Part I", and from this transaction the following notes and extracts have been made.

Liber XXXIII. Par. 93. Chap. V, Sect. 29. "Goldsmiths also claim chrysocola as their own for soldering gold, saying that all other varieties with a similar verdant hue were named from this one. It is mixed in due proportion with Cyprian verdigris and the urine of a beardless boy. Nitrum (carbonate of soda) is added, and the whole triturated with a pestle of Cyprian copper in a mortar of the same material. The mixture obtained we call santerna. With it is soldered gold which contains silver, the presence of which is indicated by the brilliance of the surface when the santerna is applied. On the other hand, gold which contains copper, contracts and grows dull, and is soldered with difficulty. For this kind of metal, the solder is made by adding gold and one-

seventh part of silver to the substances mentioned above, and grinding them all together."

Par. 93 (Notes). We are told that Galen and Dioscorides omit nitrum from the recipe for santerna. Nitrum was probably sodium carbonate, not our nitre. Alloys of copper, silver and gold are in use as gold solders. No doubt in soldering with chrysocolla some metallic copper was deposited and presented a clean metallic surface suitable for union.

Liber XXXIII. Par. 86. Chap. V, Sect. 26. "Chrysocolla is an exudation found in the shafts which we have already mentioned. It oozes down the vein of gold, and its muddy substance is congealed under the influence of the winter cold till it is as hard as pumice. It is well established that the best quality forms in copper mines and the next best in silver mines. It occurs in lead mines also, but this kind is inferior to that found in gold mines."

Par. 86. (Notes) Chrysocolla. The identity of chrysocolla has been a matter of some dispute. The use from which the name is derived suggested that it was a borax, a meaning still given by Lewis and Short, while Ajasson held that the chrysocolla strewn on Nero's arena was yellow mica or talc. Both these views are clearly wrong.

Dioscorides gives an abbreviated account, probably drawn from the same source as Pliny's.

Isidorus says that chrysocolla is a product of copper mines, and when found in gold and silver mines is due to the presence of copper.

The usual identification with malachite or basic copper carbonate, is clearly correct, though it is quite possible that other copper minerals such as the modern chrysocolla (a silicate of copper) are included under the name.

Liber XXXIII. Par. 94. Chap. V, Sect. 30. "Other similar facts may well be grouped with this, that Nature may have her meed of admiration from all. Gold is soldered with the mixture described above, iron with clay, masses of copper with cadmea, copper plates with alum, lead and marble with resin, but black lead (lead) is soldered with white lead (tin), and white lead to itself by means of oil. Stagnum too is soldered with copper, and silver with stagnum. Pine-logs make the best fire for melting copper and iron, but Egyptian papyrus is also serviceable, and gold is melted on a fire of chaff. Lime develops heat in contact with water, and so does Thracian stone. The latter is quenched by oil, but fire is best quenched by vinegar and birdlime and egg. Earth is the least combustible of all substances. Charcoal, on a second ignition, burns more furiously."

Par. 94. (Notes) The soldering materials given here are unclassified, some forming part of the joint, some acting simply as cleaning materials or

as fluxes. Alumen, no doubt, was a cleaning material. Resin is still used as a flux for soft alloys, and oil for pewter and Britannia metal.

Cadmea. Cf. H. N. 34, 100, ff., where several varieties obtained as sublimates in the roasting of copper ores are described. There can be little doubt that this cadmea was zinc oxide. That which is described in H. N. 34, 2 was a natural mineral, perhaps calamine.

Stagnum. An alloy of lead and silver, and not tin.

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A. Barb. Zur antiken Münztechnik. Numismatische Zeitschrift. Vol. 23, 1930. Pp. 1-8. Part III entitled Nummi Subaerati reads as follows:

"A problem, the solution of which has caused much racking of brains is the manufacture of the so-called 'plated' coins, which consist of a core of base metal (copper, iron) coated with thin silver (or gold?) plate. This plating is found especially in Roman denarii of the republic and early empire. Mommsen\* has established that these were not made by counterfeiters, but that they were an official coinage of a fiduciary nature.

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\* Römisches Münzwesen, pp. 386-87 and passim (s. Index, 'Plattierung'; according to Mommsen, relying on



"The same technique is also to be noted frequently on barbarian coins.† Von Ernst first explained this plating as being accomplished by immersing red-hot copper in molten silver. This method seems impossible; such a coating would not be uniform, but would be thickened in the places on the blank which are depressed; furthermore, the manner of immersion cannot be explained. The coins could be dipped only by means of a tong- or tweezer-instrument or by being fastened on a wire. In each such case there must be places on the blank where the instrument or the wire would touch and be inaccessible to the plating."

"There are a considerable number of methods of covering base metals with gold or silver, which are no longer known, since the galvanic method

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Ackermann, *Num. Chron.* VI, 1843, it was made especially under Augustus for trade with the South Indies!) Cf. Willers in *Num. Zeit.* XXXI (1899), p. 364; recently opposed to Willers, Bahrfeldt in *Blätter für Munzfreunde*, Jg. 58, 1923, p. 8. Detailed material by Graf: *Münzverfälschungen im Altertum* (*Num. Zeit.* XXXV, 1903) and earlier Bahrfeldt, *Die gefutterten Münzen der Römischen Republik* (*Num. Zeit.* XVI, 1884).

† Cf. Gohl 'Az Erem' III (1925), p. 1 and *Numis. Közlöny* VI, p. 59; see also Barb's remark in *Num. Zeit.* LXI (1928) p. 4; also on Greek coining see Graf (loc. cit.) and Babelon, *Traité*, pp. 633-640.

has come so generally into use, such as the so-called hot-gilding—a considerable number of methods through smelting or by means of ‘cold-plating’, yet because of the technical ignorance of the ancients, none of these need to be considered.”

“Opposed to this, the following methods appear relatively simple; the melting temperature of silver (and also gold) lies below that of copper (with fine silver the difference constitutes 130 degrees, with silver-alloys, correspondingly more). Now if one lays a copper blank (or even one of iron, whose melting point is still 100 degrees higher) between two thin sheets of silver (which must not exactly correspond in size and form with the blank) and heats gradually to approximately 1000 degrees, the silver will flow onto both sides of the blank and cover them; the steady, gradual heating which is the condition (otherwise the silver sheet runs together into a globule) is to be obtained by such a device as a potter’s oven, which provides also the guarantee that the temperature will not be exceeded.”

“This proceeding calls for but little time or work; a great number of blanks could be laid out quickly between two sheets of silver on a clay or charcoal support and a greater number be shifted into the oven at a given time.”

"By way of supplement, after I had tried to clarify the preceding explanations of plated coins, I saw that Von Ernst was convinced of the impossibility of the method first proposed to him, and simultaneously with Bahrfeldt, decided for a process proposed by Piccioni which essentially coincides with the above. The 'only possible' conclusion of Bahrfeldt 'that this subtle and time-consuming way of plating coins is not applicable to the wholesale plating of coins' falls to the ground in the light of the development proposed above by me, even though to him another supposition seems established."

In criticism of the above idea of Barb's, it must be pointed out that all of the plated coins we have examined have been plated before they were struck. Therefore his objections do not have so much weight as regards the variations in thickness of the silver coating.

In the second place, when he speaks of heating silver sheet on a copper blank up to the melting point of silver so that it melts he has evidently not examined many actual coins because the majority show that the silver foil was never actually melted.

Our microscopic examination seems to have cleared up the above questionable points.

In Spink and Son's Numismatic Circular, February, 1931, Vol. XXXIX, p. 54, is a translation of a paper "How the Nummi Subaerati were Made" by Dr. Ernest Darmstaedter which appeared in the *Mitt. der Bayer. Num. Gesellschaft*, Vol. XLVIII, 1929.

He starts off with the possible methods of manufacturing and discusses them.

a) Dipping a copper coin or blank in a molten silver. A considerable quantity of molten silver would be necessary, otherwise the silver would cool down when the copper coin is being dipped.

He points out the difficulties, emphasizing the fact that where the copper blank was held by means of pincers the silver would not cover the copper.

It seems almost impossible to avoid the formation of a copper-silver alloy. The blanks would have to be heated and would be oxidized although borax or sal-ammoniac might be used to flux the oxide. The process is complicated as well as difficult.

b) The silver plating is done by means of melting it on the copper coin. The author tried this method also.

Well cleaned copper blanks were covered with sheet silver, about 1/10 mm. thick and hammered on the copper in the cold state. The coin was then heated up to the fusing point of silver

and then cooled down again. Any oxide formed was removed by dilute sulphuric acid. After some practice, coins were obtained showing a compact silver plating on all sides. But by this method it is hardly possible to obtain a silver plating which would be so sharply separated from the copper core as in the case of the denarii. The author thinks these plated coins were not made by this process.

c) Silver plating by means of quicksilver. This process corresponds to hot gilding and hot silvering. A silver amalgam is applied to clean copper and the quicksilver removed by heat, leaving a silver coating. In practice, this process is not at all simple and would have to be repeated twice in order to obtain a thick covering of silver. It seems unlikely, therefore, that this process was used as a general method, but it may have been employed where only a thin coating of gold or silver was desired.

d) Plating of the copper by means of sheet silver. The copper was wrapped in sheet silver and heated to a red heat. Then the silver is fixed to the copper by hammering, nowadays by means of the roller. The author's experiments with this method were not satisfactory and the union of the silver and the copper was only imperfect. In the case of lenticular blanks for coining as they were used in antiquity, this process seems

to be almost impossible. Moreover, no edge could be obtained as in the case of antique *sub-aerati* which have one. This edge would then have to be made after the silver was applied by melting the silver edges overlapping the coin. In short, this complicated and difficult process is almost impossible to carry out.

The author's method of making "filled" coins is carried out as follows: A lenticular piece of copper is inserted between two dish-shaped semi-spherical caps fitting closely and made of thin sheet silver. On the inside and especially on the edges some hard solder has been applied, and the piece of copper together with the two closely fitted caps is heated until some of the hard solder flows out. After cooling down the edge is flanged a little and a compact piece is obtained, the silver plating of which is quite consistent and its structure solid enough to allow stamping. The author then goes on to explain how the work was done in antiquity.

a) Copper blanks for coining, lenticular in form and a bit curved, were cast in the usual way and cleaned. Sometimes they were stamped out of sheet copper of suitable thickness. For such work it would be necessary to use a swage.

b) The silver cases were made by stamping out of a piece of sheet silver by means of a steel stamper, using a block of lead as a support. By

this means cup-shaped silver cases are obtained, the edges of which will only have to be trimmed. The copper blank, when put between the two silver caps, will be completely covered by them and the edges of the silver cases will then lie one on the other.

c) Some hard solder is put on the side of the inner cap, brought to fusion, then the blank is inserted between the silver caps and the whole heated until the solder flows. Antique accounts about solder and soldering are somewhat unintelligible and often, as in the case of Pliny at least, part of them erroneous. For soldering purposes a metal alloy has to be used whose fusing point is a little lower than that of the metals to be soldered. Hard solder is made in the proportion of 3 parts of silver and 1 part of copper, and is quite ductile. As means of doing the soldering, and especially to avoid the oxidation of the copper, borax or sal ammoniac may perhaps have been used. The chrysocolla as mentioned by Pliny was probably malachite. If silver mixed with a little chrysocolla is heated malachite separates into carbonic acid and copper, which latter combines with the silver and produces hard silver solder.

It is necessary that the silver cap should fit tightly upon the copper core so that no air can get in, otherwise the copper would be oxidized and

soldering would be difficult. The method when properly carried out gives the best results and the process is far simpler than this description might lead one to think. The author then goes on to describe a probable method of heating on a grate over glowing coals whereby a number of coins could be soldered simultaneously.

The author goes on to state that filled antique coins may offer other cores than copper, then gives an example—Syria, Antiochus VIII, 121-96 B. C. This coin had a core of zinc.

“When I had come almost to the end of my experiments, I was given the opportunity of reading the treatise of M. Bahrfeldt about ‘Technique employed in antiquity when minting,’ *Berliner Münzblätter, Neue Folge*, January, 1904, page 433. That Professor Piccione has solved the ‘problem of how silver coins were plated,’ and this, ‘splendidly and unobjectionably’ I do not quite believe. It must be said that the professor is of the opinion that the silver was smelted on the copper core, a thing I have also tried when making my experiments and which I have described above. As to M. Bahrfeldt he too has his doubts and writes: ‘how could this subtile method which took so much time, be made to agree with the abundant minting and the bringing out of the coins?’”



In criticism of this work of Professor Darmstaedter it may be pointed out that while such silver soldering was probably used in a number of cases, it is also most probable that many of these coins were made without silver solder by what is known as the Sheffield Plate method. Furthermore, examples of Roman denarii had been examined in which the silver has certainly been melted on copper either in the form of sheet or more likely as a powder, perhaps of a silver-copper alloy in order to make use of its lower melting point. Pliny does mention chrysocolla for soldering gold, but he says nothing of soldering silver to copper. He says that silver is soldered with stagnum, which is an alloy of silver and lead. However, for gold containing copper, solder is made by using gold and one-seventh part of silver mixed with chrysocolla, Cyprian verdigris and nitrum (carbonate of soda); this last mixture he calls santerna, which apparently works as a flux.

## PART II.

Notwithstanding the conclusions obtained from specimens studied in Part I and even though the microscopic evidence submitted supplements our previous knowledge regarding the plating process, it was deemed wise to extend the investigation to a larger number of coins to see whether the conclusions reached held uniformly. Twenty-five additional coins were subjected to a careful examination by hand lens and of this number five of the most interesting were cut and mounted as had been done with the pieces described in Part I. Enlargements of the other twenty coins made it possible to detect analogies with coins previously studied. The geographical as well as the chronological distribution has been considerably extended. No evidence controverting the conclusions reached previously was found. The description of these twenty coins and the conclusions reached regarding each one of them follow. The illustrations of the pieces are grouped and come after the text, where they precede the remaining five pieces which were cut and mounted, and these last have the notes accompanying the respective illustrations just as was done in the first portion of this work. In order to bring the pages of text together the summary of the conclusions concerned with these twenty-five coins is given here.

COIN 14, (0.50). Italy, Bruttium, Croton. 420-390 B. C. Didrachm. *Obv.* Eagle to r., head turned back. *Rev.* Tripod.  $\varphi\rho\omicron$ . The cut on the edge shows two layers of silver, with some  $\text{Cu}_2\text{O}$  below. One or two spots near edge of *obv.* show two layers of silver. The black incrustation resembles silver sulphide.

COIN 15. Italy, Calabria, Tarentum. Didrachm. *Obv.* Horseman to r. *Rev.* Taras on dolphin to l. Symbol, dolphin; monogr.  $\overline{\text{AP}}$ . On the obverse, a patch of the coating behind the horseman has flaked off. On the reverse the overlapping is visible without a glass.

COIN 16, (0.55). Italy, Campania, Neapolis. Didrachm. Circa 300-280 B. C. *Obv.* Head of Parthenope to r. Behind, Athena Promachos. *Rev.* Man-headed bull and Nike to r. Obverse—shows distinct laps back of the head. Worn spot on edge shows copper below. Cracks in the silver coating, especially at back of head and below neck where metal is considerably raised—corroded below.

COIN 17, (0.56). Italy, Campania, Neapolis. Didrachm. Circa 400 B. C. *Obv.* Head of Parthenope to r. *Rev.* Man-headed bull and Nike to r. Obverse—near edge, shows silver very thin and worn through to copper. Reverse shows distinct

laps near edge. Test cut on edge shows thick silver edge with copper below.

COIN 18, (0.57). Italy, Lucania, Velia. Di-drachm. 3rd Century B. C. *Obv.* Helmeted head of Athena to l. Above, A. Behind, IE in linear square incuse. *Rev.* Lion attacking stag to l. Obverse—silver worn away at helmet, leaving oxide and carbonate of copper: laps at very edge. On edge itself, several worn places showing two layers of silver and copper oxidation products below.

COIN 19, (0.58). Italy, Lucania, Velia. Di-drachm. Circa 380-350 B. C. *Obv.* Helmeted head of Athena to l. *Rev.* Lion devouring prey to l. Obverse—large patches where silver has peeled off. Copper oxide and carbonate below—corrosion deep before silver fell off. Reverse—shows distinct laps.

COIN 20, (0.69). Persia. Achaemenid Kings. 5th and 4th Centuries B. C. Siglos. *Obv.* Figure of King to r. with bow and spear. *Rev.* Oblong incuse. Reverse—shows signs of lap at edges. In center the silver is worn away and core is covered with thick layer of copper oxide.

COIN 21. Acarnania, Echinus. Stater. *Obv.* Pegasus to r. *Rev.* Helmeted head of Athena to r. In field to l., fish-hook(?) and E. The copper

core shows in the break below the head of Athena. No overlapping visible.

COIN 22, (0.67). Italy, Campania, Hyria. Didrachm. 4th Century B. C. *Obv.* Helmeted head of Athena to l. *Rev.* Man-headed bull to l. Above, YPINAI. Obverse—several holes showing copper oxide. One on cheek rimmed with blue crystals of azurite. Reverse—body of bull has no silver left; three deep pits in the copper covered with a thick hard crust of carbonate and oxide bluish in color.

COIN 23, (0.63). Rome. Denarius. Antonia Gens. Mark Antony. Circa 31 B. C. *Obv.* Galley to r. M. ANT. AV. III. VIR. R. P. C. *Rev.* Two standards and a legionary eagle. LEG. XIII. Reverse (standard) shows laps at edge. Obverse (galley) no laps. Corroded area to N. W. is all copper oxide. No copper on filing except a film just under the silver coating of the reverse side.

COIN 24, (0.64). Rome. Augustus. 31 B. C.—14 A. D. Denarius. *Obv.* Laureate head of Augustus to r. *Rev.* Caius and Lucius Caesar facing with two large shields between them. Obverse—lapped round the edge. Worn spots show copper oxide (and film of carbonate) below.

COIN 25, (0.68). Italy, Lucania, Thurium. Didrachm. Circa 400 B. C. *Obv.* Helmeted head of Athena to r., helmet adorned with the figure of

**cylla.** *Rev.* Butting bull to r. **Fish** to r. in the  
*ergue.* Above,  $\odot$ OYPIQN. **Reverse**—shows  
**istinct** lap across bull's head to below the  $\Omega$ .

**COIN 26, (0.22).** Tarentum. Didrachm. End  
 of 4th Century B. C. *Obv.* Horseman to left.  
*Rev.* Taras on dolphin to left. In several places  
 on the obverse the silver has peeled off, leaving a  
 patch of copper oxide exposed. Toward the edge  
 here are signs of a lap in the silver coating.

**COIN 27, (0.21).** Velia. Didrachm. 4th Cen-  
 tury B. C. *Obv.* Head of Athena to left, with  
 Phrygian helmet. *Rev.* Lion devouring head of a  
 man. The reverse shows a hole at the shoulder  
 of the lion where the copper has turned to carbo-  
 nate. Above the back there is a well-marked lap.

**COIN 28, (0.52).** Alexander the Great. Tetra-  
 drachm. Same description as for No. 29. In  
 the field of the reverse, rose. Beneath throne,  
 $\Delta$  10. The obverse is a copy of certain Alexan-  
 ders of the Miletus mint (circa 320 B. C.), the  
 reverse of issues of the Alexandria mint (circa  
 320 B. C.). Both surfaces worn down to copper.  
 At several points along the edge the silver coating  
 has worn off and copper and its oxidation prod-  
 ucts are seen. There are patches of  $\text{Cu}_2\text{O}$  covered  
 with what appears to be horn silver and also cop-  
 per carbonate (green) lying in the silver at the

The first of these  
 is the fact that  
 the coin is  
 dated to the year  
 of the reign  
 of the emperor  
 at the year  
 on the reverse  
 the appears  
 no signs of  
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33A



Scylla. *Rev.* Butting bull to r. Fish to r. in the exergue. Above,  $\odot$ OYPIQN. Reverse—shows distinct lap across bull's head to below the  $\Omega$ .

COIN 26, (0.22). Tarentum. Didrachm. End of 4th Century B. C. *Obv.* Horseman to left. *Rev.* Taras on dolphin to left. In several places on the obverse the silver has peeled off, leaving a patch of copper oxide exposed. Toward the edge there are signs of a lap in the silver coating.

COIN 27, (0.21). Velia. Didrachm. 4th Century B. C. *Obv.* Head of Athena to left, with Phrygian helmet. *Rev.* Lion devouring head of a ram. The reverse shows a hole at the shoulder of the lion where the copper has turned to carbonate. Above the back there is a well-marked lap.

COIN 28, (0.52). Alexander the Great. Tetradrachm. Same description as for No. 29. In the field of the reverse, rose. Beneath throne,  $\Delta$ IO. The obverse is a copy of certain Alexanders of the Miletus mint (circa 320 B. C.), the reverse of issues of the Alexandria mint (circa 320 B. C.). Both surfaces worn down to copper. At several points along the edge the silver coating has worn off and copper and its oxidation products are seen. There are patches of  $\text{Cu}_2\text{O}$  covered with what appears to be horn silver and also copper carbonate (green) lying in the silver at the



deeply raised angles of the design and between the letters. No signs of any lap on the surfaces.

COIN 29, (0.51). Alexander the Great. Tetradrachm. *Obv.* Heracles' head to r. *Rev.* Zeus seated to l. in field. This piece is imitated from a coin of the Ake Mint. The obverse copies a coin of the year 28 (circa 319 B. C.), the reverse a coin of the year 31 (circa 316 B. C.). The small cut on the edge shows copper core. Silver coating appears quite thick. The two surfaces show no signs of copper. The ear of Heracles was (later, probably comparatively recently) filled with lead below which is a layer of wax. It has been drilled down to the copper core. The two surfaces have a "dotted" appearance especially at the deeply stamped parts and resemble cast surfaces. The edge shows no copper but has been hammered, giving a number of facets.

COIN 30, (0.62). Italy, Campania, Suessa. Didrachm. Circa 250 B. C. *Obv.* Head of Apollo to r. Behind, lyre. *Rev.* Rider and two horses to l. SVESANO. Obverse—back of and below head silver distinctly in two layers. Edge here is corroded away—copper oxide and carbonate on copper. Reverse—three or four places on edge show silver worn through and oxidized copper below. Irregular lapping over of the silver.

COIN 31, (0.60). Rome. Denarius. Fonteia Gens. First Century B. C. *Obv.* Heads of the Dioscuri to r. *Rev.* Large galley. MN. FONTEI. Reverse. Several spots show craters where the silver has corroded. On edge, one spot shows corrosion pits in the copper. The lap seems to be on the very edge.

COIN 32, (0.66). Rome. Ogulnia, Gargilia, Vergilia Gentes. First Century B. C. *Obv.* Laureate head of Apollo to r. *Rev.* Quadriga to r. Beneath, OGVL. GAR. VER. Copper with  $\text{Cu}_2\text{O}$  in the hollows. An occasional patch of the copper-silver eutectic with dendrites of copper.

COIN 33, (0.59). Rome. Denarius. Cornelia Gens. First Century B. C. *Obv.* Bust of Hercules to r. with club and lion's skin. *Rev.* Roma facing, crowned by Genius. Obverse—shows two or more thin layers of silver near nose and forehead. Reverse—also shows two or more layers of silver at top and left. Edge—one badly corroded spot (left on rev.), core practically all copper oxide (red and crystalline).

COIN 33A. Italy, Bruttium, Caulonia. Didrachm. 550-480 B. C. *Obv.* Archaic male figure advancing to r., holding a branch in his upraised r. arm. On the outstretched l. arm is a small running figure, also holding a branch, and looking backward. In the field to r., a stag looking backward. In



COIN

33A



field to left, the first four letters of the city's name. *Rev.* The larger figure and the stag similar to the above, but incuse; the smaller figure and the inscription lacking. The rim on both sides is badly cut. The face of the coin shows the copper exposed on the man's body and left arm where the silver has peeled off. There is a distinct crack or lap in the silver coating back of the body to below the letter A. *Reverse.* Copper shows through at several places on the edge where the lap is very distinct. The silver disc for the face of the coin was only slightly larger than the copper blank and therefore the lap or join is very close to the edge of the reverse. These incuse coins are rarely found plated.

In addition to coins 14-33A five others were chosen on which to make a microscopic examination. These were taken because they appeared to represent typical examples of the main structures met with in the previous examination. The coins were mounted as before in fusible metal and then the whole was filed down until enough of the edge of the coin had been exposed in order to show the structure from the copper core to the outer skin. In the cases where the section was made near the edge (cf. Plates 149-150), the silver coating seems to be unusually thick. With the other coins, where the cut coincides with the diameter, the coating is crossed at a right angle.

Near the edge the coating is crossed diagonally, and this makes it seem thicker than it is in reality. There were two cases, however, in which the coins had been previously cut medially; these were mounted and the cut surface polished in the usual way.

All except two of these coins show the usual coating of silver sheet with more or less distinct lapping of the edges over the copper core, as in the previous examples.

The two exceptions are Nos. 32' (0.66) and 38 (0.70) in which the silver coating was put on either by dipping or by sprinkling the copper core with powdered silver or copper-silver alloy and heating up till the powder melts and "runs" over the surface.

## SUMMARY.

An examination of this second series of coins was made and the structures found were similar to those of the previous examination.

There seems little doubt, therefore, that our previous findings were more or less correct, namely, that some of the samples show a coating which was probably produced by attaching the silver foil to the copper core by means of silver solder in the form of the eutectic alloy of silver and copper. Other samples seem to indicate that no solder was used but the silver was attached to the copper by heating to the eutectic temperature and the junction was produced by diffusion as in the more modern method of making Sheffield plate. A third method was one in which silver foil was not used. It is possible to produce such a coating by dipping the copper core in a bath of silver-copper alloy, but as all of these coatings are very thin it is more probable that the method consisted of using powder and a suitable flux and heating until the silver melted and ran to form a continuous but irregular coating.

## PART II – PLATES





14.



15.



16.



17.



18



19.







21.



20.



21.



22.



23.



24.





25.



26.





25.



27.





28.





29.





30.





31.







28.







29.





30.





31.





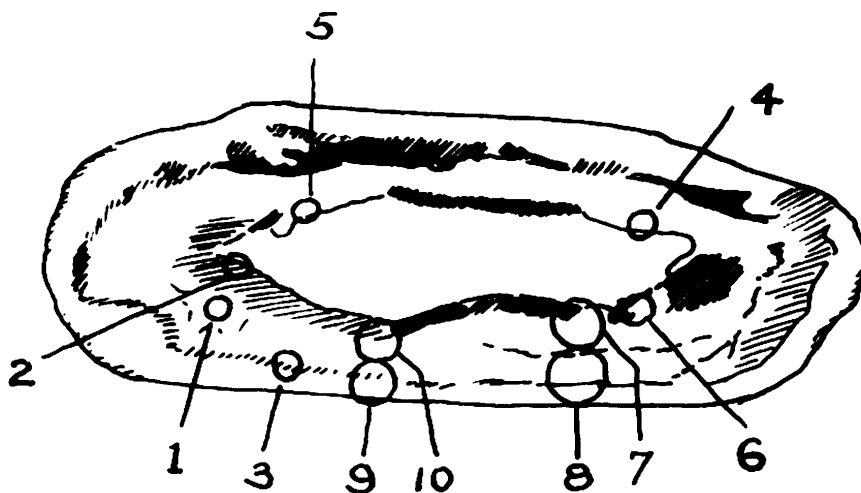
32.





33.





147. COIN 34, (0.20).

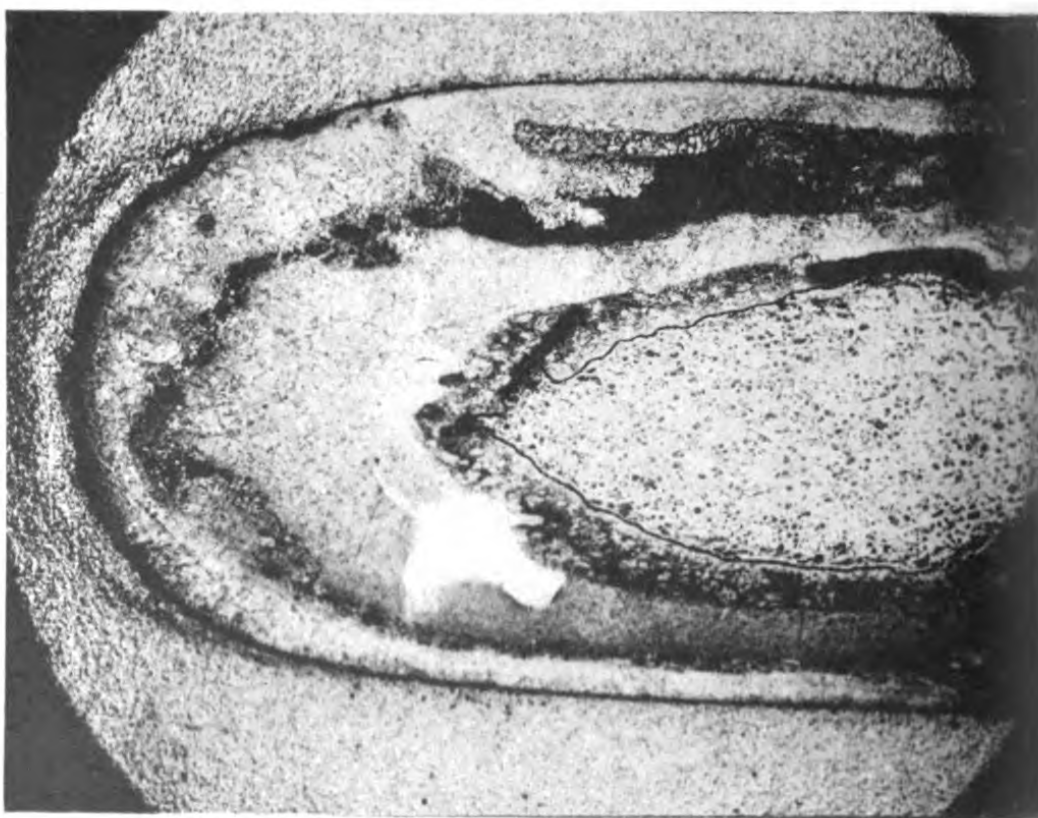
Neapolis. Didrachm 340-241 B. C.

*Obv.* Head of nymph to right.

*Rev.* Man-headed bull to right. Victory above.

The coating has peeled away on the rump of the bull and the copper has turned to carbonate. Along the body of the bull there is a distinct crack; between the feet there is a lap. On the obv. a crack runs from the chin to above the ear thence following the fillet; the edge shows no overlapping. Superficial examination shows what is apparently a folding of the silver coating on the rev. and the enlargements which follow demonstrate the correctness of this conclusion.

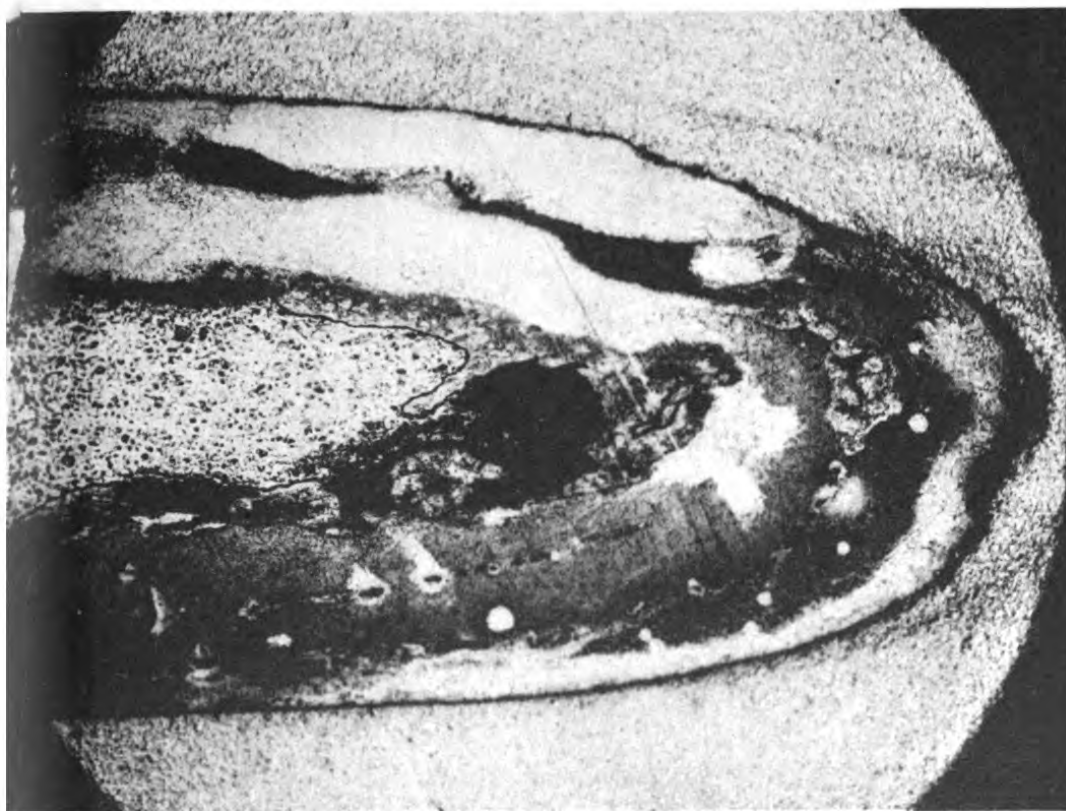




149-150. COIN 34. (0.20). Figs. 2 and 3 x 25.

A dark border mainly of copper oxide surrounds the copper core. Outside of this are two layers of silver joined by a layer of eutectic alloy varying in thickness. Two patches of eutectic are recognizable at the ends of the copper core. Under a magnification of five hundred diameters the layer between the two sheets of silver where they over-

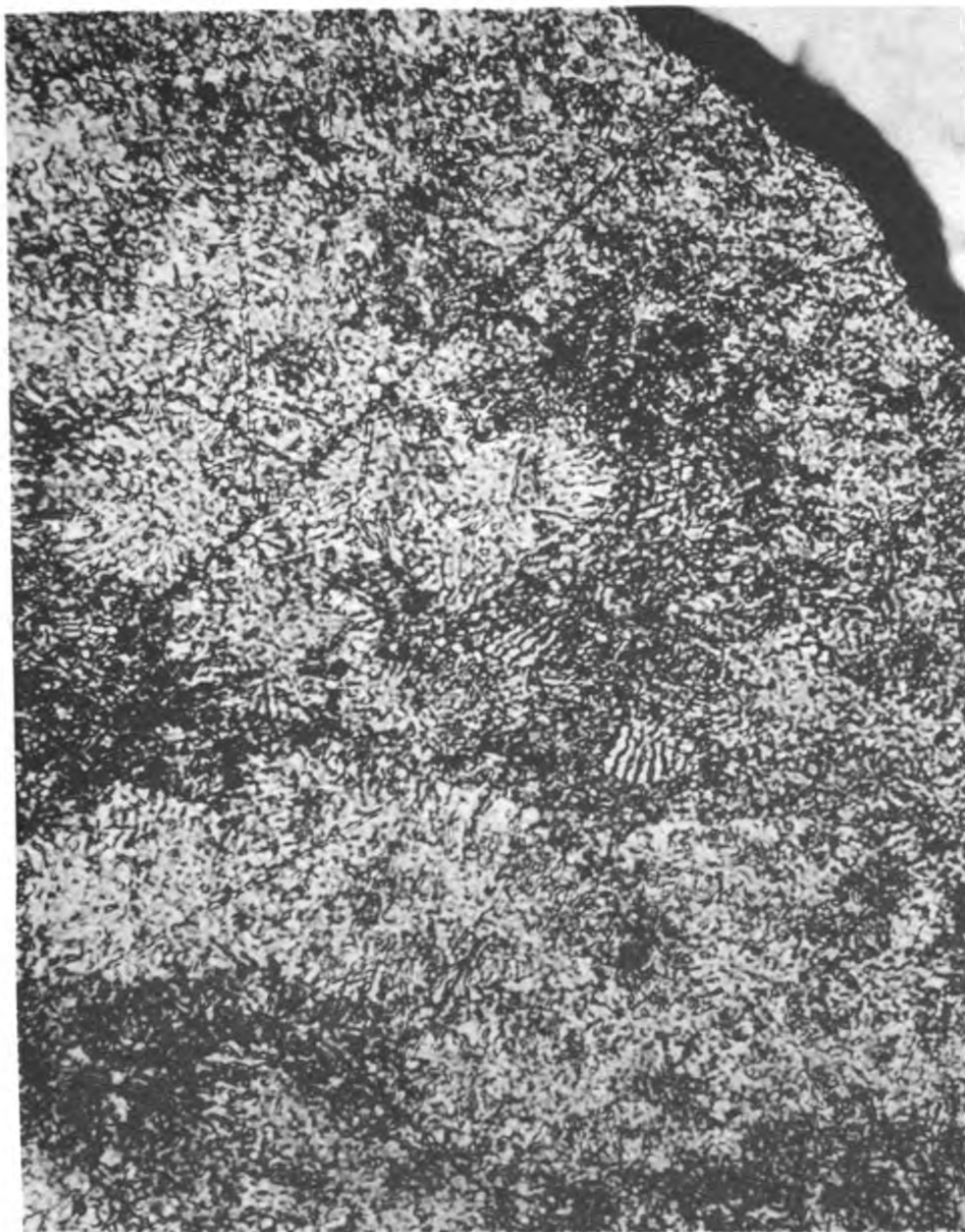




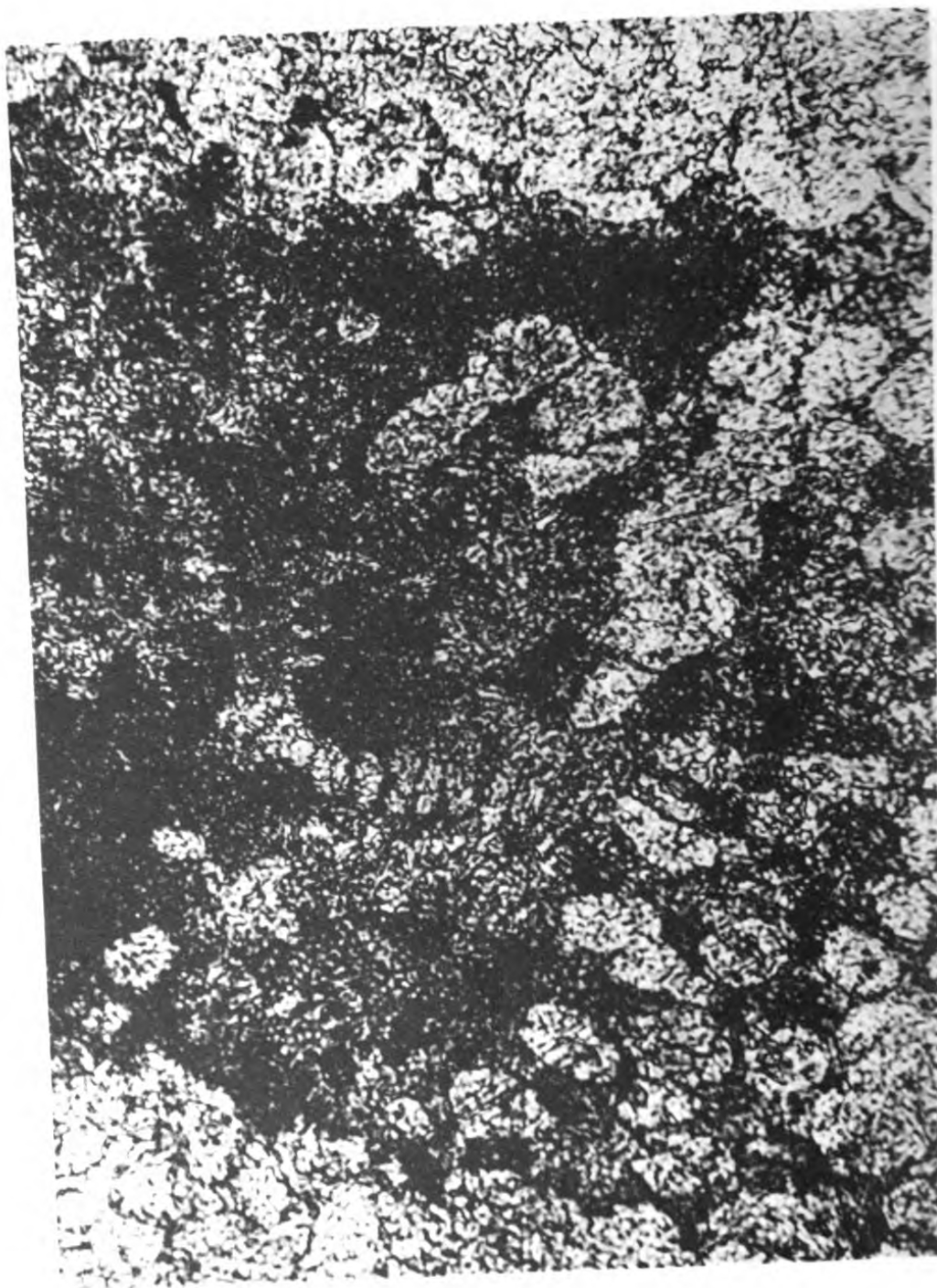
lap is recognizable as a duplex alloy—a eutectic of much finer grain than found in specimens examined previously. The silver is seen to contain a considerable amount of copper precipitated at the grain boundaries. These two enlargements show very clearly the variation and the lapping of these two layers of silver, between which in several places there is a distinct hole mainly due to the corrosion of the copper contained in the alloy.



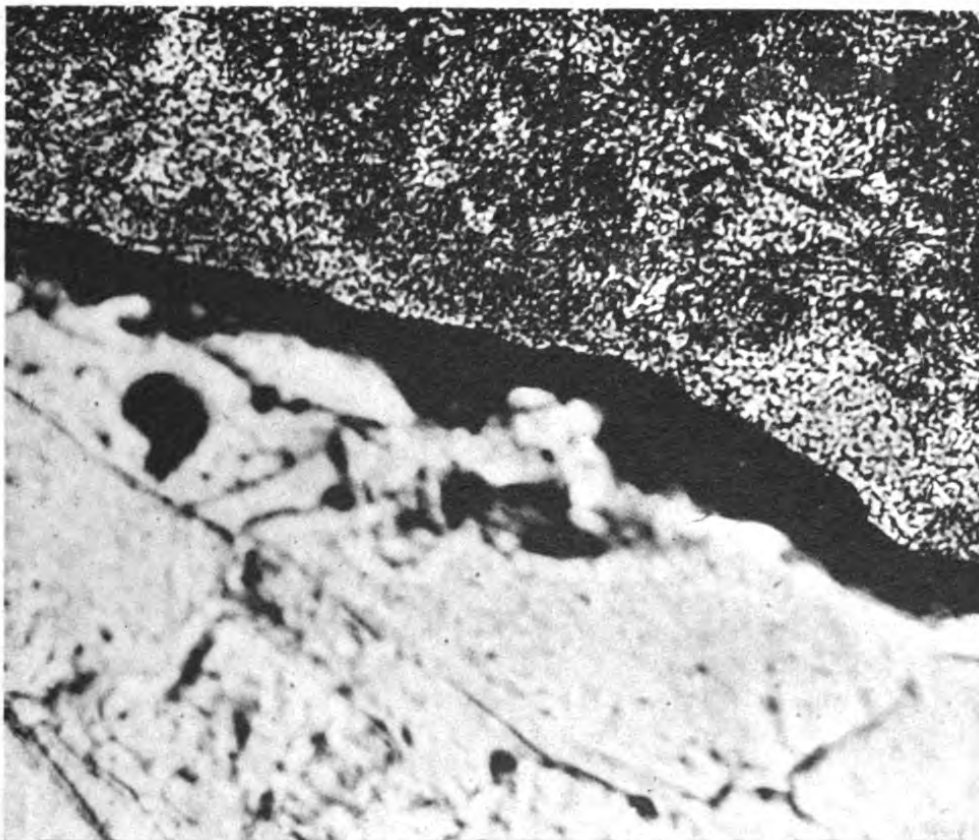
151. COIN 34, (0.20).      Fig. 5 at  $1 \times 500$ .  
Showing copper precipitated on the irregular  
boundaries of the silver grains.



152. COIN 34, (0.20). Fig. 4 at 2 x 500.  
Juncture of silver with copper core (upper right).  
The dark layer between is eutectic of extremely  
fine texture.







153. COIN 34 (opposite page). Fig. 6 at 3 x 500. Juncture between inner and outer layers of silver; the intervening eutectic is of very fine grains and shows numerous dendrites of silver. Such a structure could hardly have been obtained without the eutectic alloy having been present originally—sufficient heat would have brought about the diffusion.

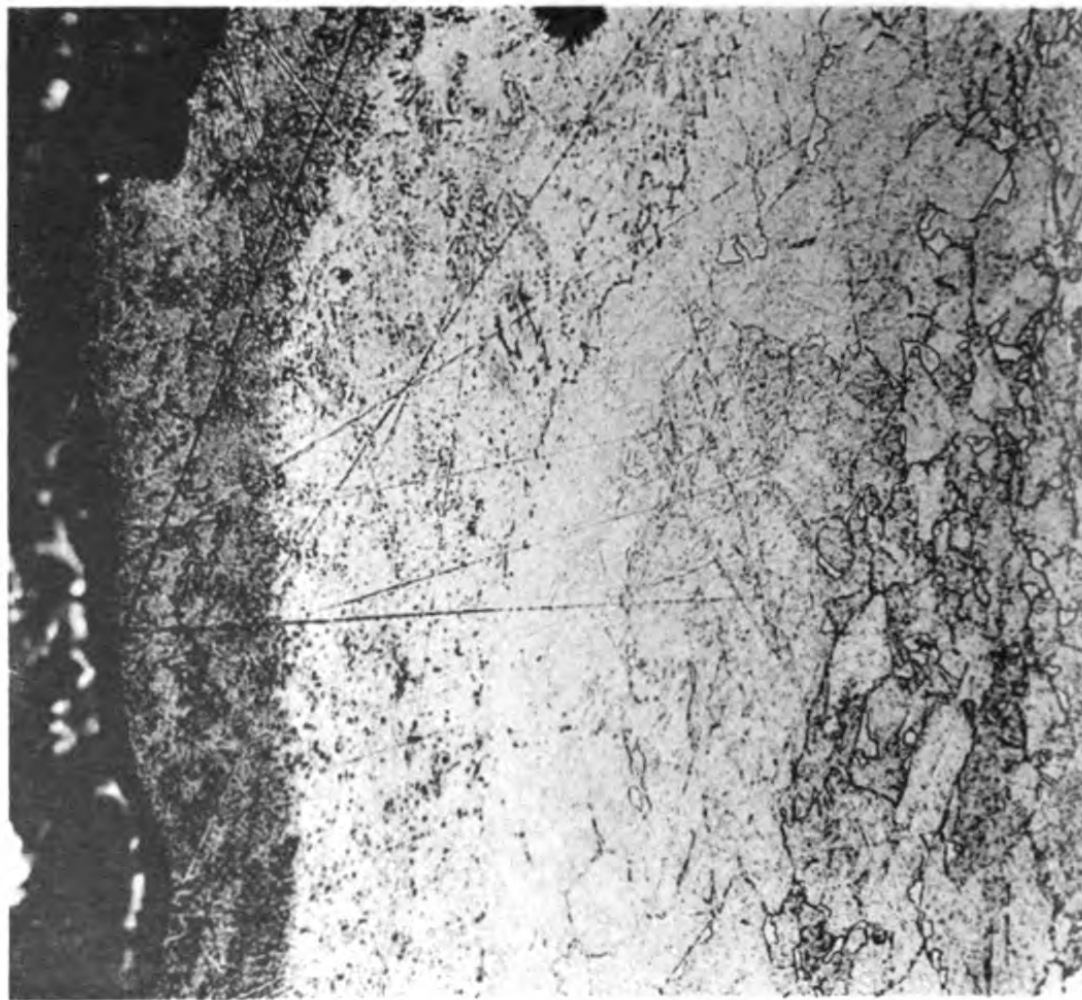
154. COIN 34, (0.20), (above). Fig. 7 at 4 x 500. Similar to 152.



155. COIN 34 (0.20); Fig. 8 at 5 x 500.  
To bring out structural details, this sample was re-polished. An area similar to that of 154 is shown. The silver coating is undoubtedly composed of the eutectic, although here and there some excess grains of silver may exist.



156. COIN 34 (0.20); Fig. 9 at  $6 \times 500$ .  
 Showing a similar area. In this case the copper  
 core has been corroded to oxide and carbonate and  
 these have been removed in the etching. The sil-  
 ver coating is undoubtedly the eutectic alloy.

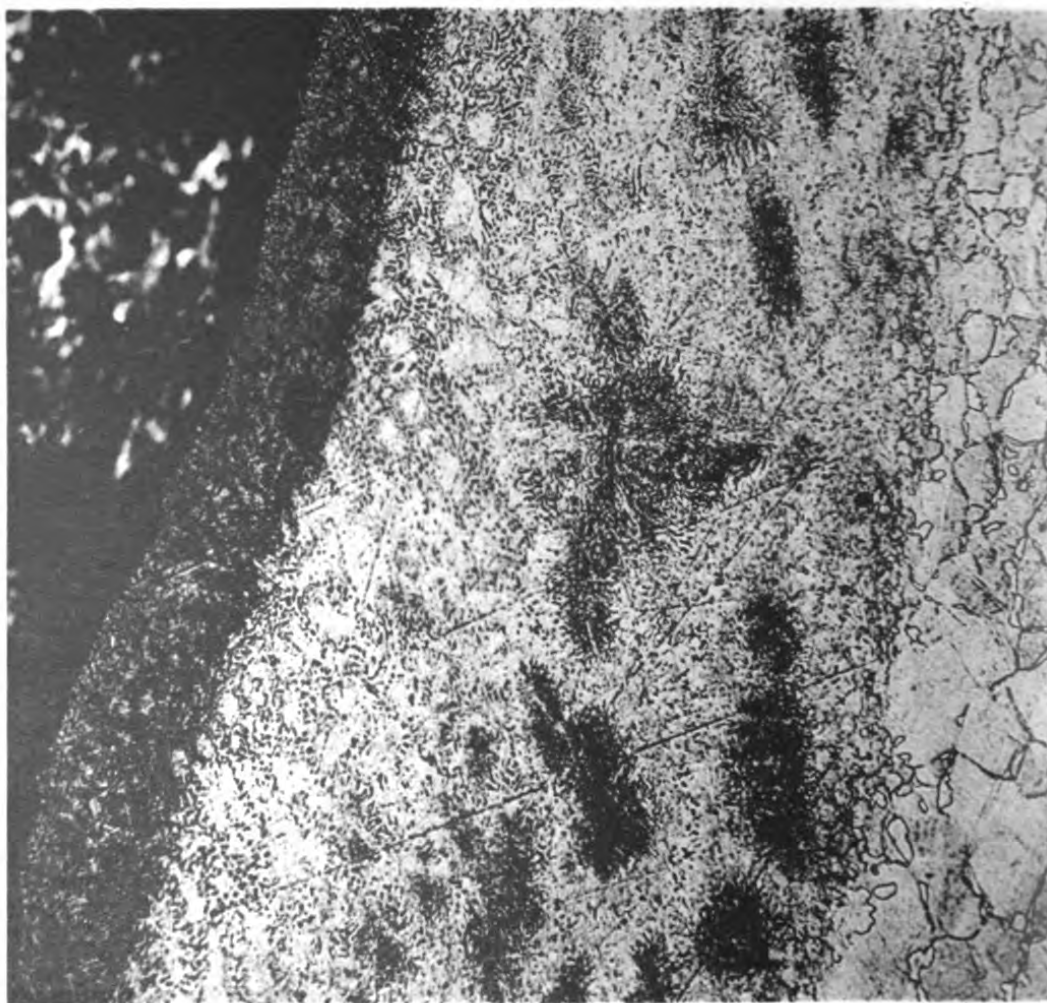


157-58. COIN 34: Fig. 10-11 at 7-8 x 500. These two and the photographs on the two pages immediately following form a composite picture illustrating the variation in structure from the copper core to the outside. The metal next to the copper core is shown at the top (i. e., at the left).

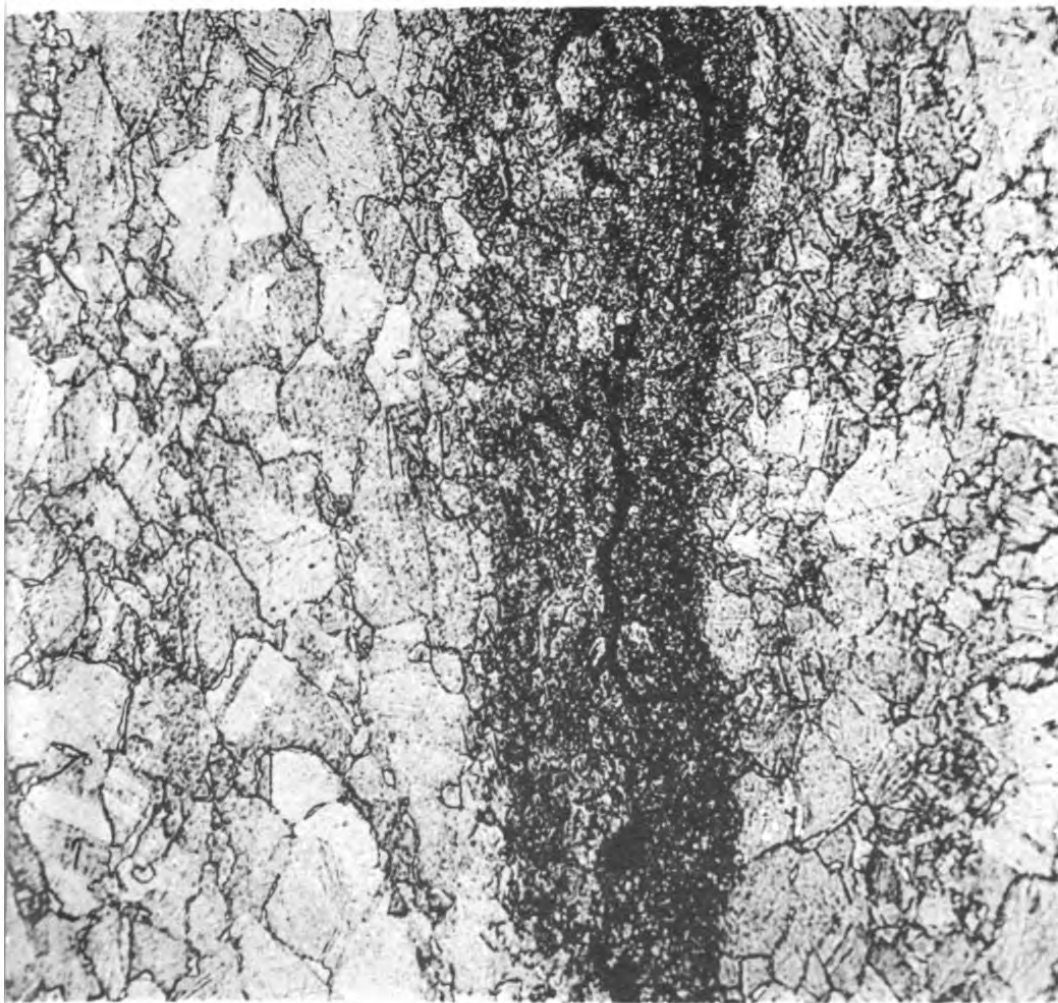




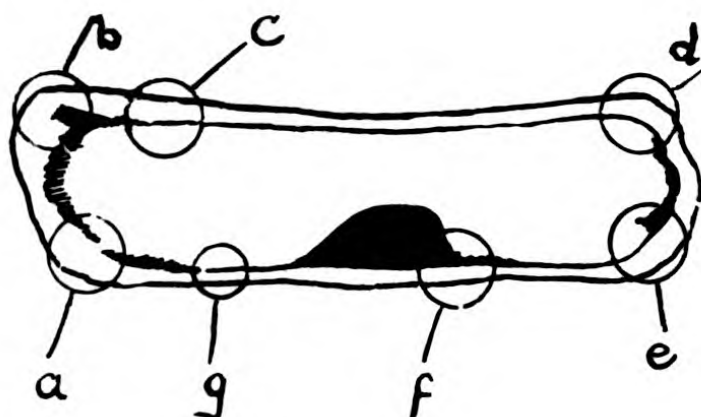
We first see a zone of the eutectic, then a band of silver at the grain boundaries of which patches of copper have been precipitated. In the continuation, two laps or joins are to be seen, and in these joins, a certain amount of eutectic is recognizable under a higher magnification.



159-60. Coin 34: Fig. 12-13 at 9-10 x 500. The dark area at the top (left) is the copper core (out of focus); below is a band of the eutectic alloy. Below this is a layer of silver with copper precipitated at the grain boundaries. At the center of the lower photograph a lap or fold in the silver coating is to be seen. This contains irregular patches of eutectic.



CONCLUSION. There can be no doubt that this core was given a coating by folding two pieces of silver over it. These were joined to the core and to each other by more or less eutectic. From the sharp line of demarcation, it seems that silver solder was used.



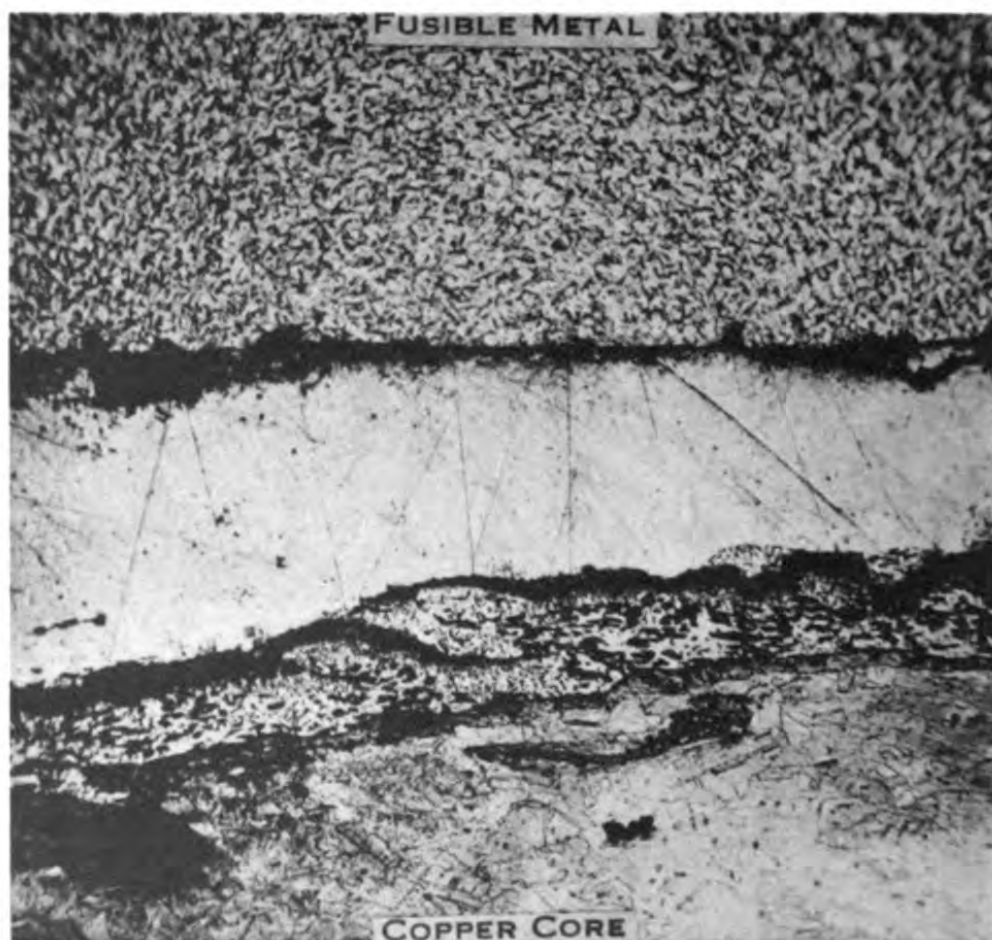
161. COIN 35 (0.53); Alexander the Great. Tetradrachm. In field, M. Beneath throne,  $\Lambda Y$ . Copied from issues of the Babylon mint (circa 323-320 B. C.).

The silver coating varies, being materially thicker at the two ends. The large hole was originally filled with copper carbonate. Under the microscope the layer of eutectic is fairly uniform in thickness but varies in composition. There was no area which showed two layers of silver adjoined by a film of eutectic.

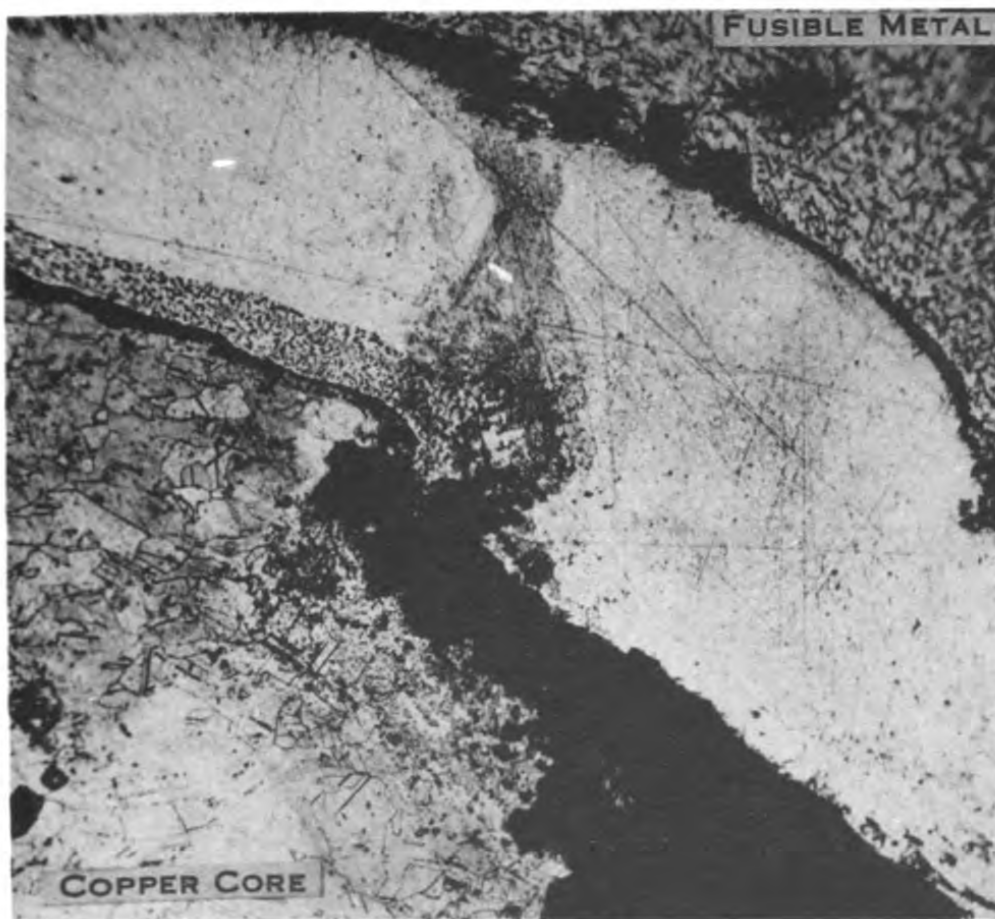


162. COIN 35 (0.53); Fig. 1 at b x 75.  
The white area is silver while to the lower right we have a mixture of copper and copper-oxide and a cavity in which the carbonate has been etched out. In the center is a distinct patch of the copper-silver eutectic.





163. COIN 35 (0.53): Fig. 2 at c x 75.  
In the lower part we have the copper core which is attached to the silver coating by irregular patches of eutectic which, however, contains excess crystals or grains of copper.

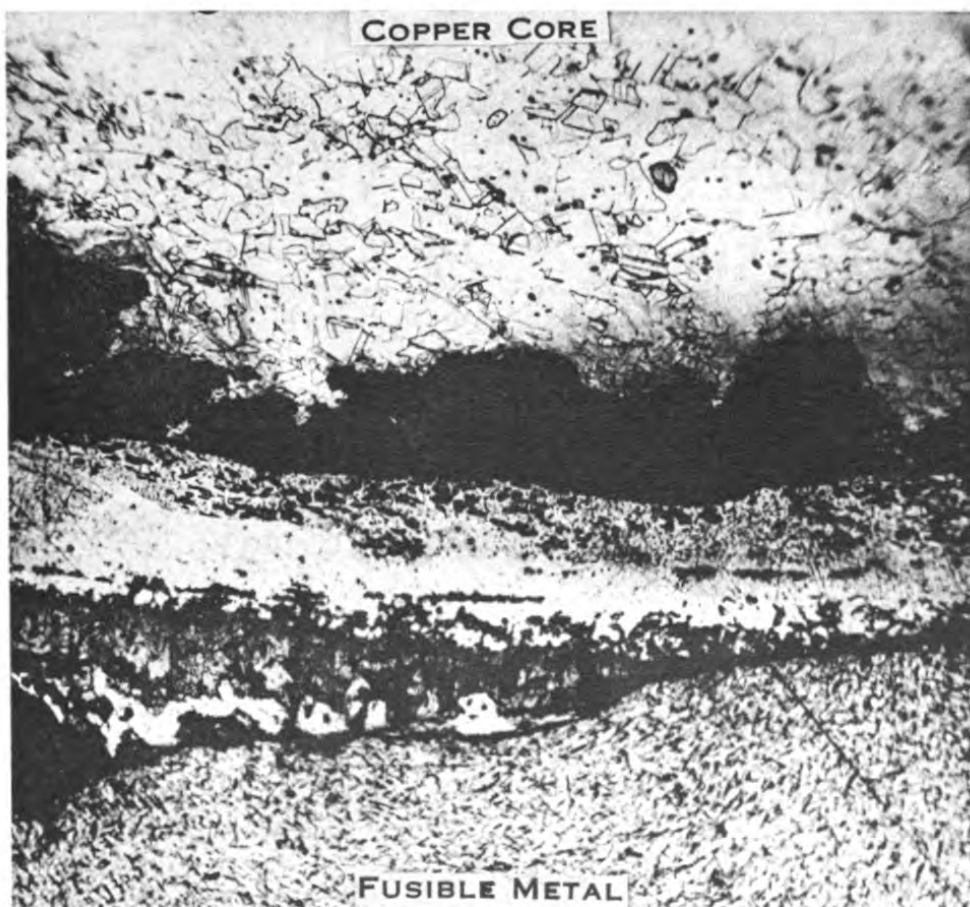


164. COIN 35 (0.53); Fig. 3 at d x 75.  
Shows the thickening of the silver coating which  
is attached to the copper core by a thin regular  
band of eutectic over half its length.



**165.** COIN 35 (0.53); Fig. 4 at a x 75. Similar to 162. The black areas are the holes whence the copper carbonate and oxide have been eaten out. The upper right is the copper core, the white band is silver coating, while between the two is an irregular layer of the eutectic alloy.

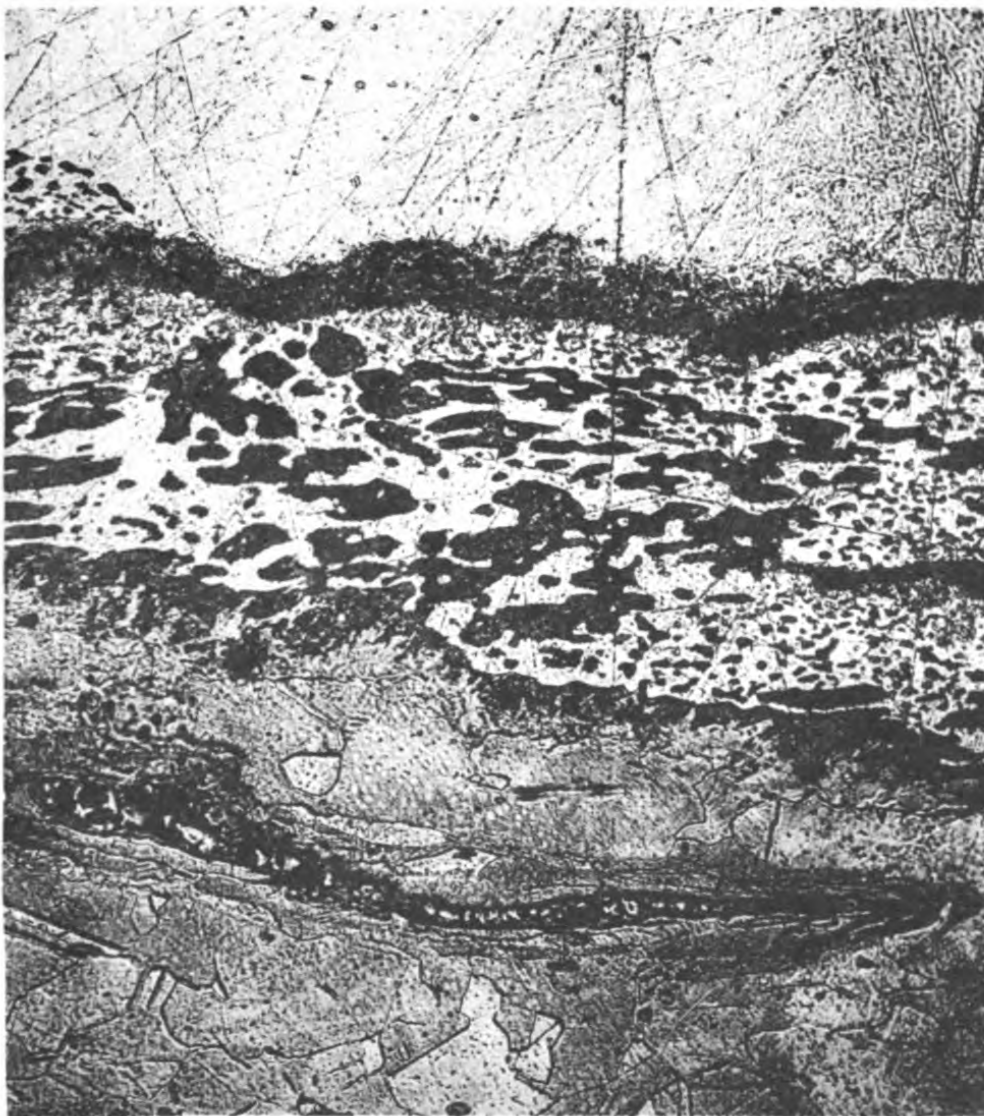




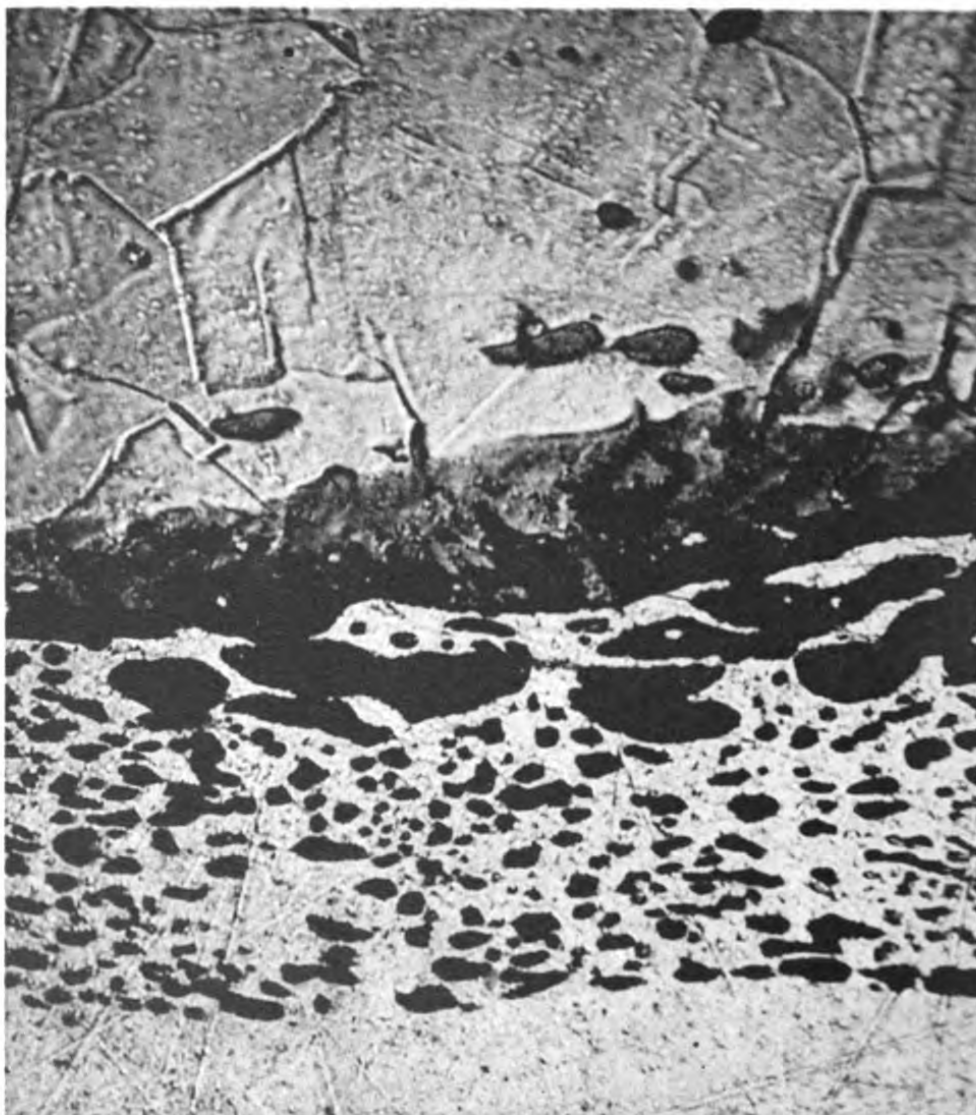
166. COIN 35 (0.53); Fig. 5 at f x 75.  
Similar to 165 except that the band of eutectic  
contains excess crystals of copper.



167. COIN 35 (0.53);      Fig. 6 at e x 75.  
Showing a similar irregular layer of eutectic between the copper core and the coating of silver.



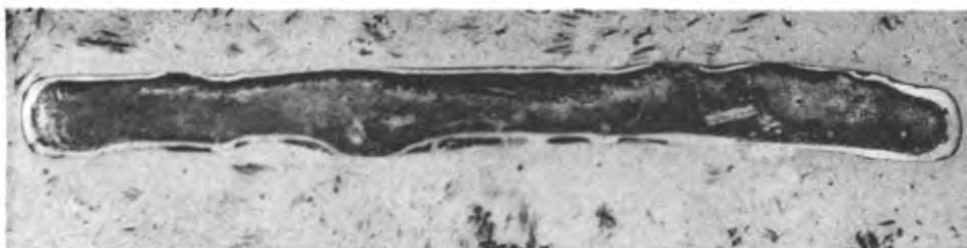
168. COIN 35 (0.53); Fig. 7 at c x 250.  
To show the details of structure two photographs were taken at a higher magnification. The upper layer is the silver coating, the lower one is the copper core; between, is a band of eutectic alloy containing grains of copper in excess.



169. COIN 35 (0.53);                      Fig. 8 at g x 700.

Similar to 168.

CONCLUSION. The above structures would indicate that copper and silver were joined together by diffusion and not by the use of silver solder.



170. COIN 36 (0.61); Roman denarius; Carisia Gens, circa 50 B. C. *Obv.* Bust of Juno Moneta; to r., Moneta. *Rev.* T. CARISIUS above in a wreath, Anvil, Die, Pincers and Hammer.

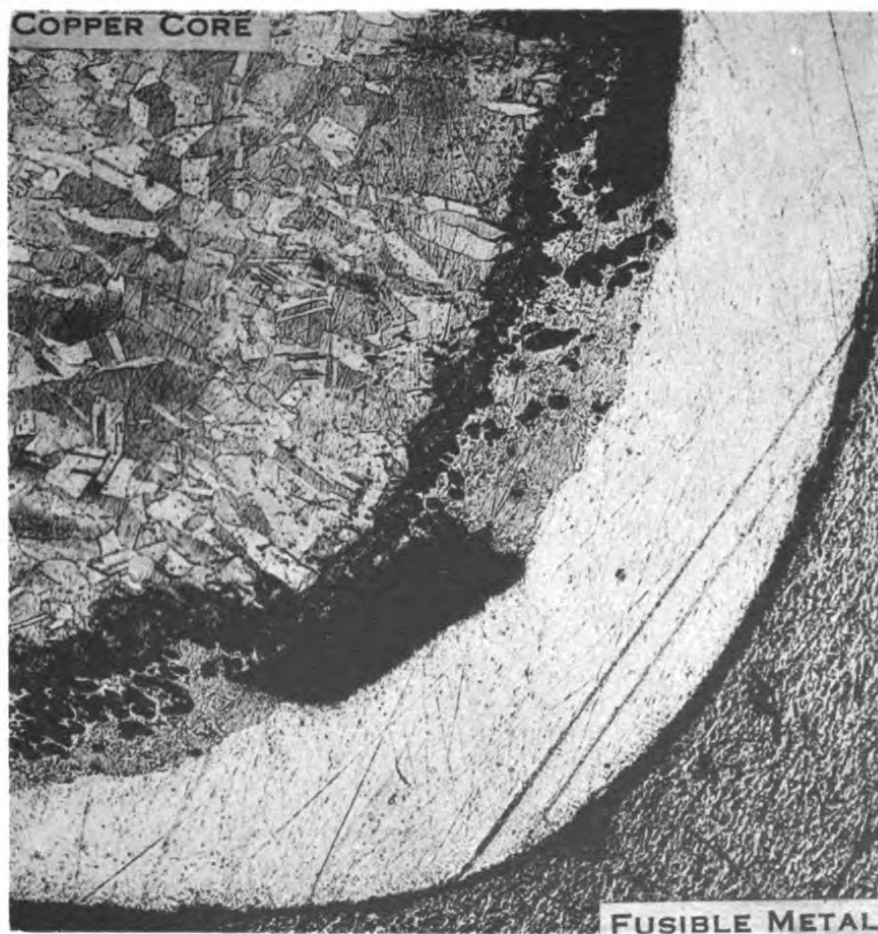
On the reverse (Pl. 171 x 5.9) a distinct lap is visible. A cross-section is shown in Fig. 1 x 4.5 diams. The silver coating is seen distinctly; it varies in thickness. Under the microscope the copper has a wavy appearance, probably a coring effect due to some impurity such as arsenic or perhaps silver in the original casting not completely diffused in the subsequent fabrication. Such a structure is common in some of our alloys today. The lap is not always distinct but where it does show there is a film of eutectic between the two layers of silver. At the ends of the section are patches of eutectic containing excess grains of copper which are very marked.



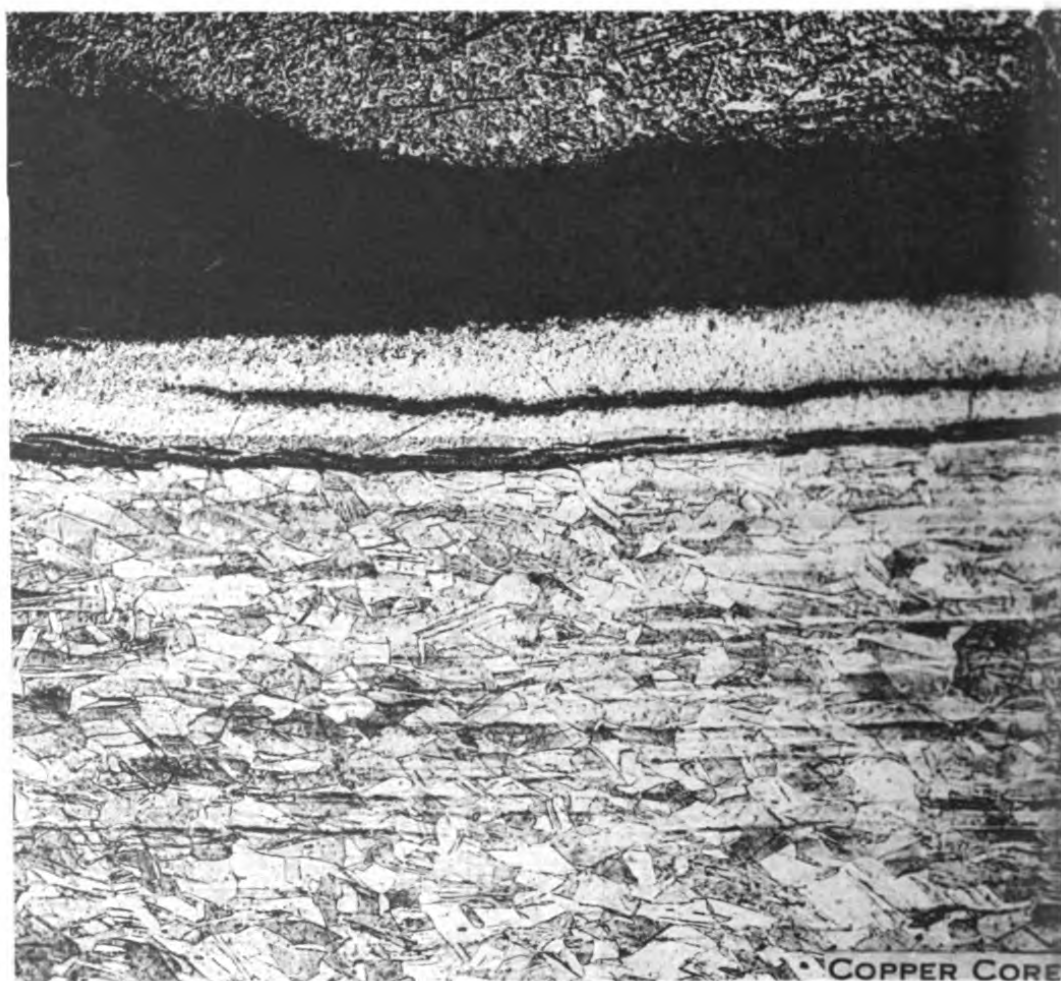


171. COIN 36 (0.61);

*Rev.* x 5.9.



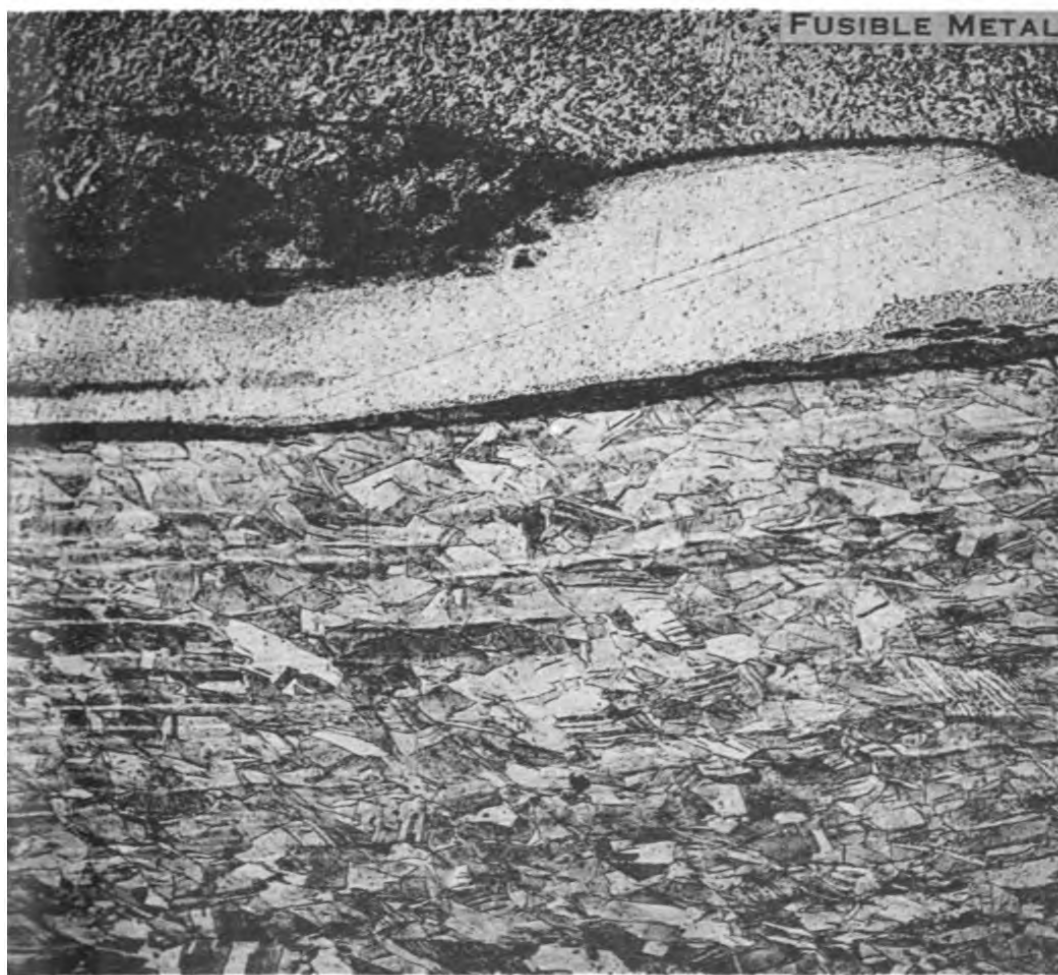
172. COIN 36 (0.61); Fig. 4 at r. end of section x 100. The white band of silver is attached to the copper core by a zone of the eutectic alloy containing grains of copper in excess, or rather, copper which has corroded to oxide.



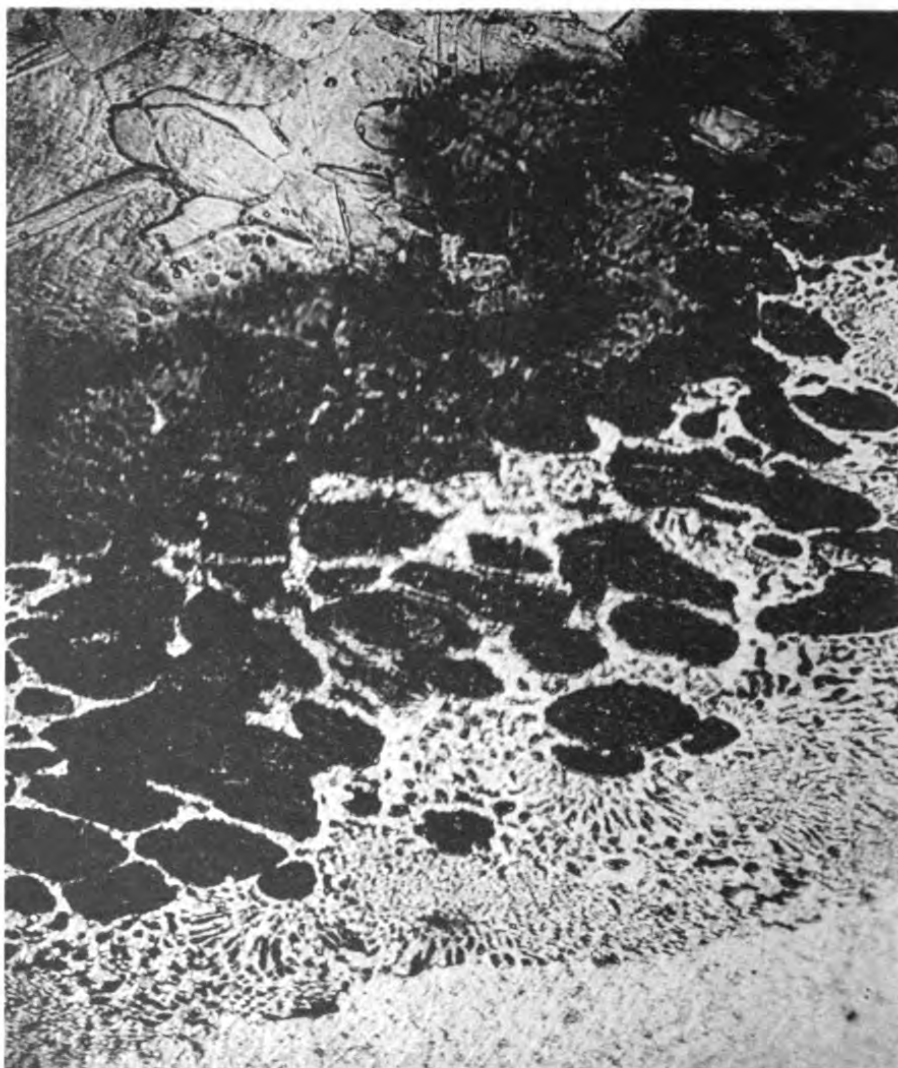
173-74. COIN 36 (0.61); Figs. 2 and 3 x 100.

The fusible metal mounting did not make a very good join, for the black areas are spaces between it and the silver coating. The lower part of the photograph consists of the copper core with its distinctly wavy or banded appearance. The silver





coating shows a distinct lap, while on the right-hand side of Fig. 3 a thick area of the eutectic is seen, which, as we pass towards the left, thins very considerably but it is still present to the left of Fig. 2.

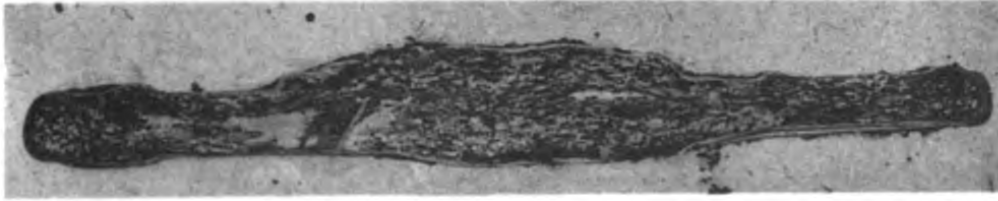


175. COIN 36 (0.61) :

Fig. 5 x 500.

Shows details of structure.

CONCLUSION. It is a matter of opinion whether this silver coating was put on with or without silver solder. The film of eutectic is fairly regular and runs up between the two layers of silver where they overlap; one might argue that silver solder had been used.



176-77-78. COIN 37 (0.65); Rome. Denarius of Tiberius. 14-37 A. D. ("Tribute Penny"). *Obv.* Laureate head to right. *Rev.* Livia seated to right. PONTIF. MAXIM.

At the lower right of the cross-section (enlarged x 4.6), distinct lapping of the silver can be seen, especially if a hand-glass is used, and this is also



visible in the enlargements of the reverse (3.6 and 5.7). The photographs which follow were taken to show this distinct lapping of the metal, but they are reversed in the microscope (Nos. 179-182). Patches of solder are quite prominent at both ends, but there is practically none in the lap. The core is very badly oxidized.



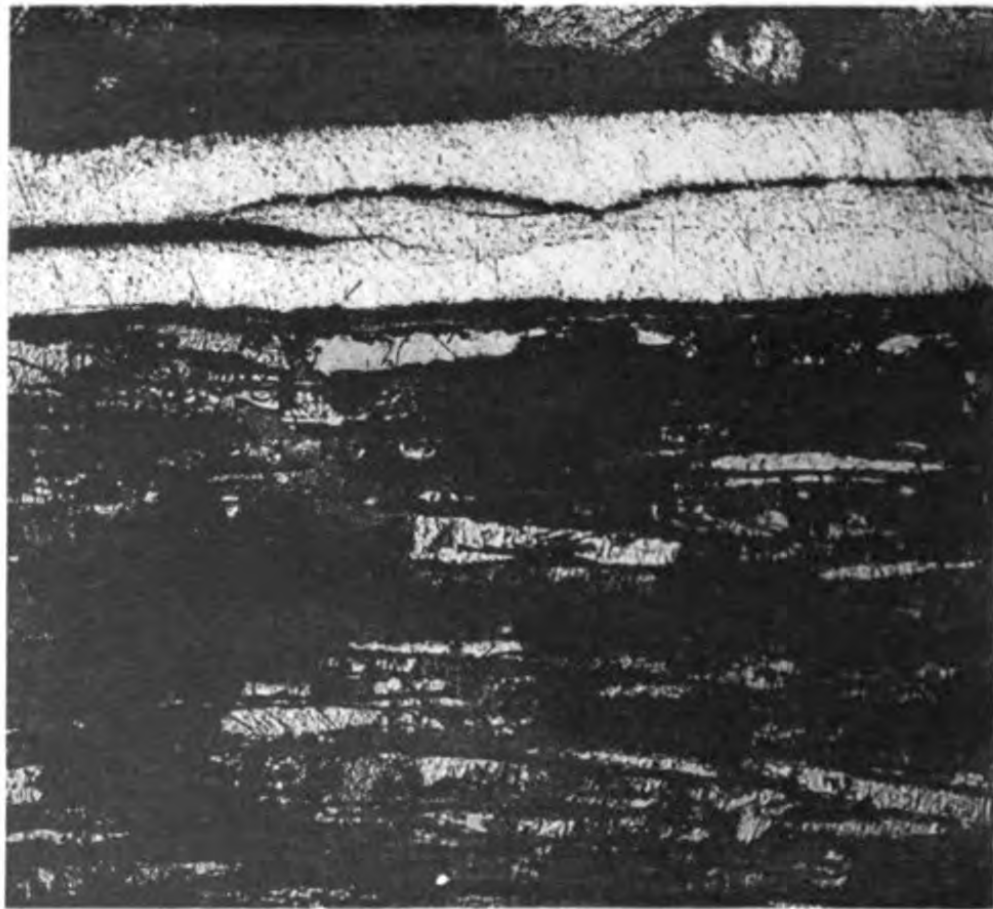


179. COIN 37 (0.65);                      Fig. 2 x 100.  
 Showing end of the lap. The upper part of the photograph is the fusible metal, the lower part is banded copper more or less oxidized while between the two are two layers of silver coating. The junction of the inner layer with the copper core shows a regular band of eutectic but between the two layers of silver we have merely a space.



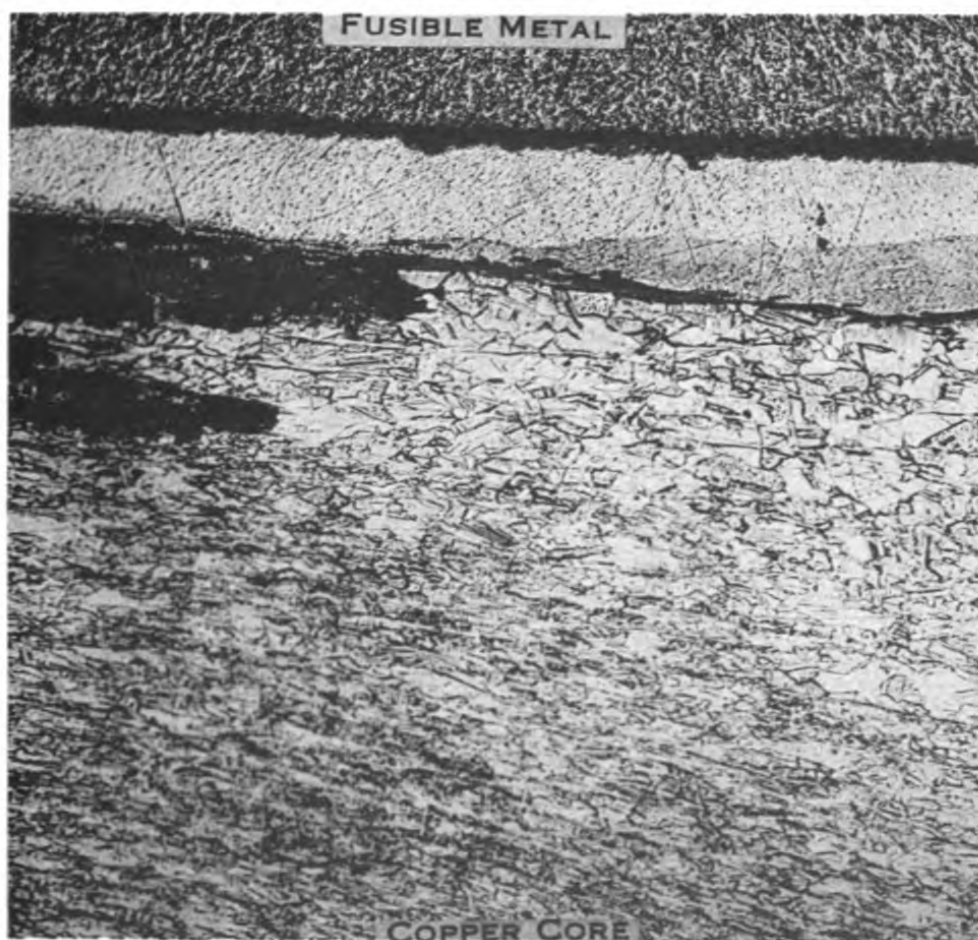


180. COIN 37 (0.65); Fig. 3 x 100.  
Similar and a continuation of the last, with a slight interval omitted. There is a distinct layer of eutectic joining the inner coat of silver to the copper and, as before, the inner and outer coats are not stuck.

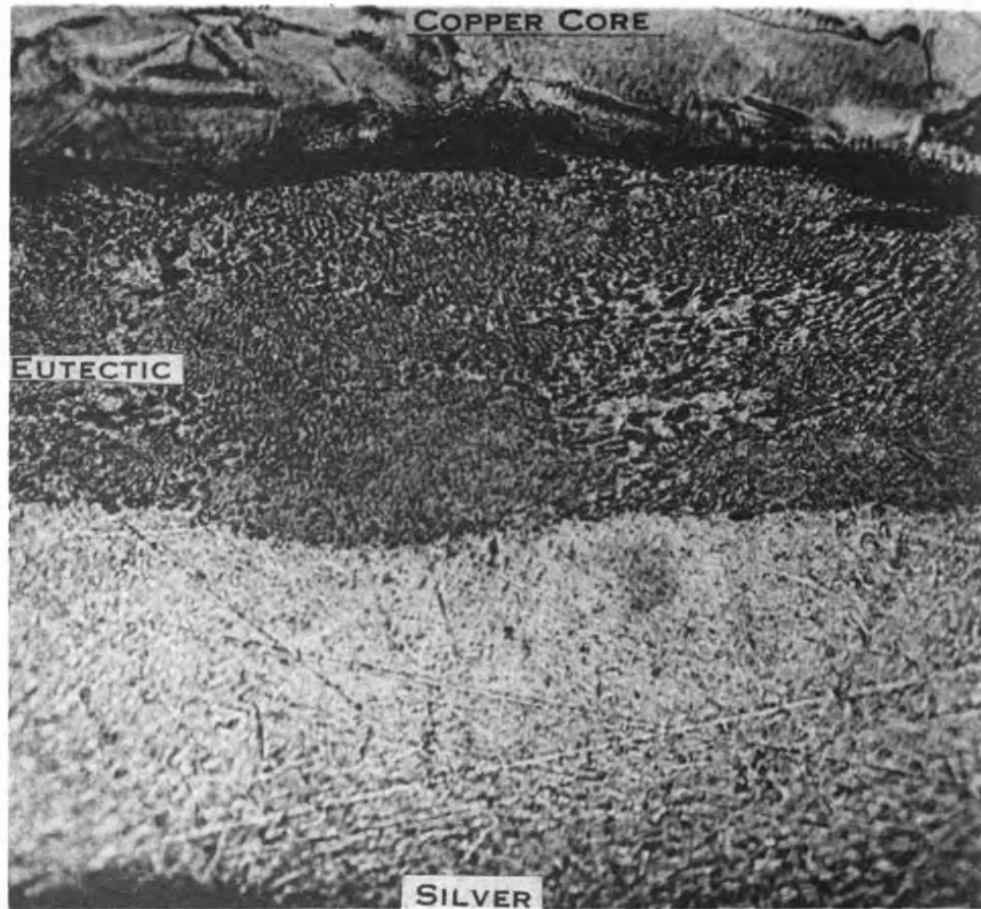


181. COIN 37 (0.65); Fig. 4 x 100.  
Similar to 179 and 180, but now, on the right hand side, there is a patch of eutectic between the two layers of silver.





182. COIN 37 (0.65); Fig. 5 x 100.  
Shows an area at the other side of the coin where the copper core is only slightly oxidized. There is a distinct lap of eutectic between the silver coating and the copper core.



183. COIN 37 (0.65); Fig. 6 x 500.

Illustrating a typical area with the band of eutectic between the copper core and silver coating.

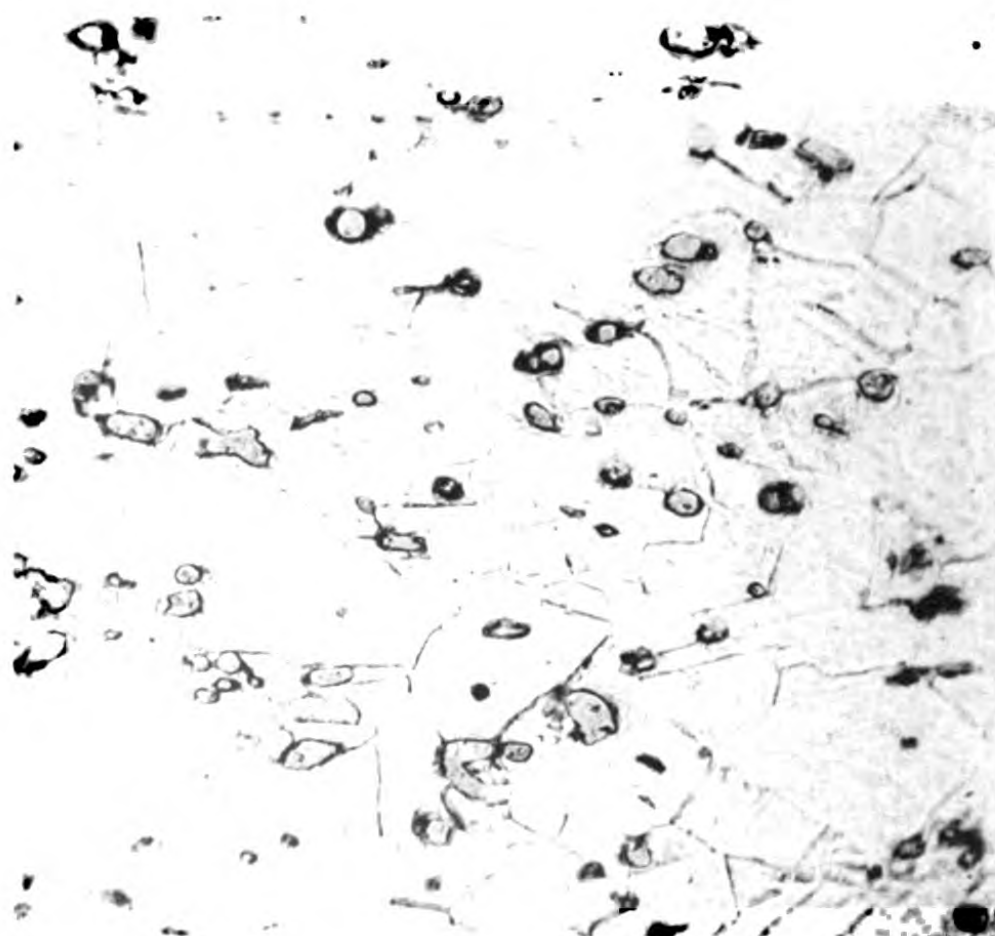
CONCLUSION. From an examination of the structure in the lap and the fact that the eutectic does not flow between the two layers of silver one must conclude that silver solder probably was not used in putting on this coating.



**184.** COIN 38 (0.70); Attica. Athens. Drachm. Circa 407 B. C. *Obv.* Helmeted head of Athena to right. *Rev.* Owl and olive sprig. AΘE.

The silver surface is spotted and resembles that of No. 32.

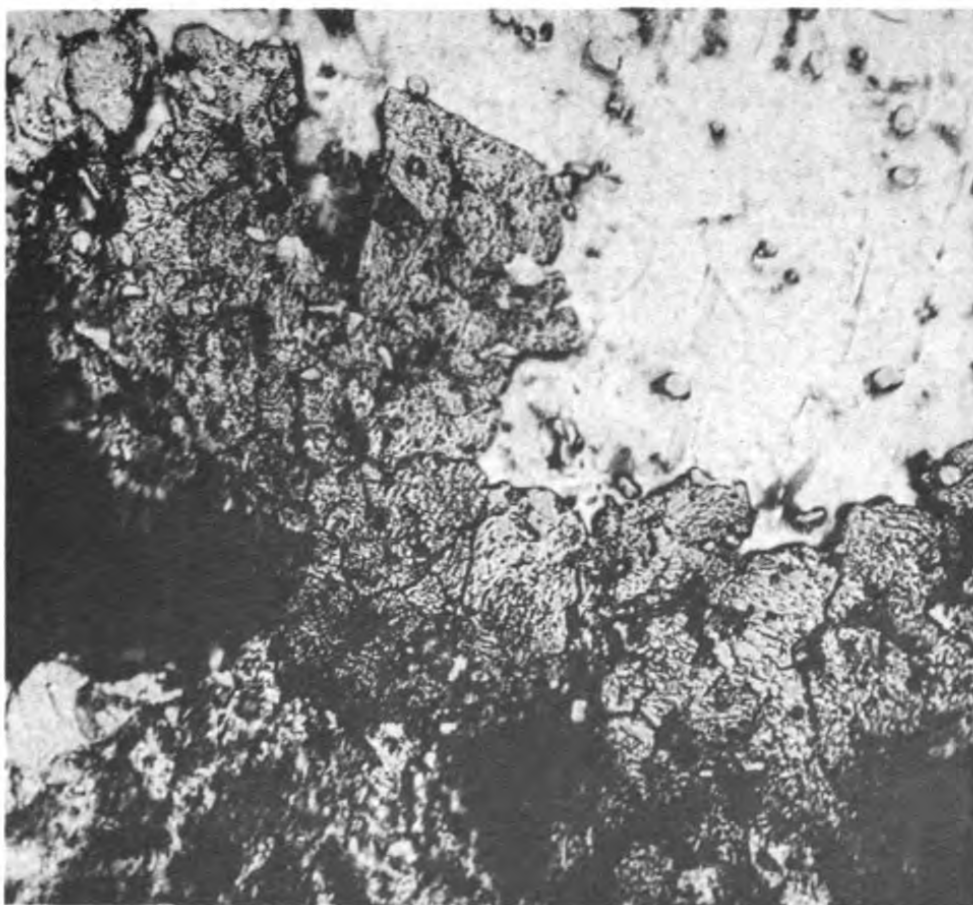
CONCLUSION. This coin shows a badly oxidized core. The silver coating consists of either the eutectic or the eutectic containing excess of copper now in the form of oxide. Such a structure would most easily be produced by sprinkling the copper core with powdered silver or copper-silver alloy and heating with a suitable flux until the powder melted and ran over the surface.



185. COIN 38 (0.70);

Fig. 1 x 500.

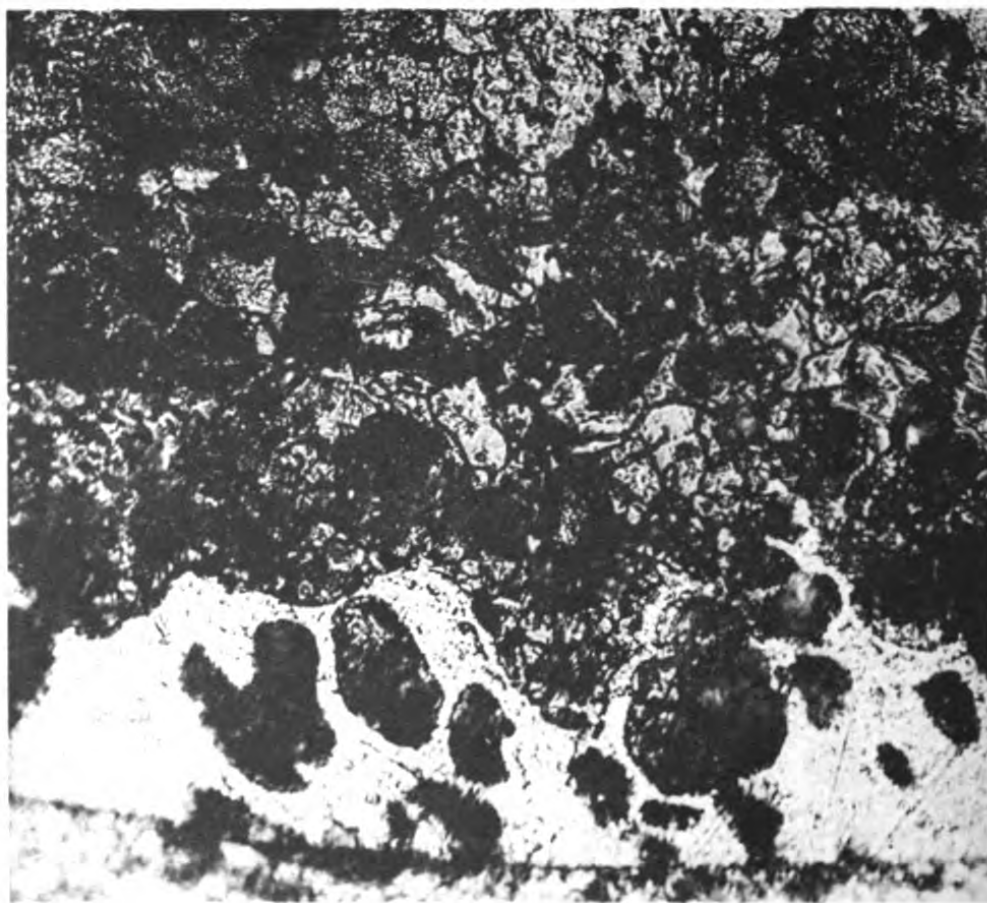
Typical of this structure of the core. This consists of copper full of small grains of copper oxide indicating that poorly refined copper was used in the first place.



186. COIN 38 (0.70);

Fig. 2.

Shows an area near the outside. In the upper right we have an area of metallic copper while towards the lower left the metal is oxidized practically completely.



187. COIN 38 (0.70);

Fig. 3.

An area at the outside. The extreme bottom of the photograph shows the fusible-metal mounting. Next to this comes an irregular layer composed of the copper-silver eutectic and containing grains of copper oxide. The remainder of the photograph is mainly copper oxide.



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SEP 27 1933

NUMISMATIC NOTES  
AND MONOGRAPHS

No. 58



THE FIFTH DURA HOARD

BY  
EDWARD T. NEWELL

THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
NEW YORK  
1933



## PUBLICATIONS

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# THE FIFTH DURA HOARD

BY  
EDWARD T. NEWELL



THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
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THE TUTTLE, MOREHOUSE & TAYLOR COMPANY  
NEW HAVEN, CONN.

## THE FIFTH DURA HOARD

BY EDWARD T. NEWELL

The subject of this study is a hoard consisting of twenty-nine silver pieces unearthed<sup>1</sup> on November 15th, 1930, at Dura "in the street west of the 'Cistern House,' against the wall of the house at the floor level of the big room to the south of the central court of that house." The hoard, when found, presented a compact and rounded mass, the individual coins of which were heavily corroded and closely adhering to each other. The outer surfaces of this conglomerate mass showed distinct traces left by the mesh of the cloth which once had served as a container to the hoard, but which was now completely rotted away. The roundish shape of the lump further attested the fact that this container had apparently once been some sort of cloth purse or bag.

The heavy corrosion and close adherence of the coins rendered them illegible, and therefore the entire mass was subjected by Dr. Bellinger to an electrolytic bath. This immersion was successful in disintegrating the lump into its component parts and the coins were finally carefully cleaned, one by one, by the writer. The following specimens, comprising twenty-two tetradrachms, six denarii and one antoninianus, eventually emerged:

<sup>1</sup> According to information kindly supplied the author by Dr. Bellinger in a letter of Dec. 8th, 1931. The present writer desires herewith to express his great appreciation to Drs. Rostovtzeff and Bellinger for the opportunity accorded him of publishing this most interesting little hoard.

## GROUP I

## ANTIOCH

Period: 49-20 B.C.

## TETRADRACHMS

1. *Obv.* Diademed head of Philip Philadelphus to r. within filleted border.

*Rev.* ΒΑΣΙΛΕΩΣ ΦΙΛΙΠΠΟΥ in two perpendicular lines on the r., ΕΠΙΦΑΝΟΥΣ ΦΙΛΑΔΕΛΦΟΥ in two perpendicular lines on the l. Zeus enthroned to l. holding a wingless Nike in his outstretched r. and resting his l. upon his sceptre. In l. field ✠. Beneath throne, Λ. In the exergue Δ. Thunderbolt above Zeus and the entire design surrounded by a laurel wreath. Struck in year 4 (Δ) of the Caesarian era, or between Oct. 1st, 46 and Sept. 30th, 45 B.C. (cf. Numismatic Chronicle, 1919, p. 88, no. 8). Gr. 11.79.<sup>2</sup>

2. Similar to the preceding. In the exergue, S. Struck in year 6, or 44-43 B.C. This year is as yet unpublished for the series, though there is now a similar specimen in the author's collection. Gr. 11.49.

<sup>2</sup> This and the following weights are those secured *after* cleaning. It had not proved feasible to weigh the coins before cleaning as they were not only too heavily corroded but also closely stuck together. The metallic composition of these coins is known to have originally contained a large proportion of copper, which copper—by the slow electrolytic action to which the coins have been subjected in the earth for some seventeen hundred years—had gradually become deposited upon the surface of each coin where it turned to verdgris. The removal of this verdgris by the process of cleaning reduces considerably the weight of the coin. Thus our tetradrachms, in addition to loss of weight incurred by many years of circulation in ancient times, are also lighter by the amount of copper which their alloy had once contained.

3-4. Similar to the preceding. In the exergue, ☉. Struck in the year 9, or 41-40 B.C. Also an unpublished date. Gr. 11.82; 12.20.

5. Similar to the preceding. In the exergue, BI(?). Struck in the year 12, or 38-37 B.C. cf. Num. Chron. 1919, p. 100, no. 17. Gr. 10.83.

6-7. Similar to the preceding. The dates are "off flan" but the form of the throne leg proves these coins to have been issued between the third and nineteenth years of the Caesarian era (cf. *loc. cit.*, p. 104). Gr. 11.81; 12.24.

8. Similar to the preceding. In the exergue, ☉I. Struck in the year 19, or 31-30 B.C. *Loc. cit.*, p. 104, no. 23. Gr. 12.08.

9. Similar to the preceding. In the exergue, K. Struck in the year 20, or 30-29 B.C. *Loc. cit.*, p. 106, no. 25. Gr. 12.28.

10. Similar to the preceding. In the exergue KA or KΔ. Struck in year 21 or 24, that is in 29-28 or 26-25 B.C. *Loc. cit.*, nos. 29 and 33. Gr. 12.60.

11. Similar to the preceding. In the exergue, SK. Struck in the year 26, or 24-23 B.C. Same reverse die as *loc. cit.*, p. 109, no. 36. Gr. 13.56.

12-15. Similar to the preceding. The dates are "off flan" but the form of the throne leg proves these specimens to have been struck after the year 19 of the Caesarian era (cf. *loc. cit.*, p. 104).

Gr. 10.70; 10.79; 11.04; 11.80.

## GROUP II

## ANTIOCH

Nero. 54-68 A.D.

## TETRADRACHMS

**16.** *Obv.* ΝΕΡΩΝΟΣ ΚΑΙΣΑΡΟΣ ΣΕΒΑΣΤΟΥ.

Laureate bust of Nero to r. wearing Aegis.

*Rev.* Eagle facing to l. on a winged thunderbolt. Palm branch on l.; S above HP on r. Struck 59-60 A.D. W. Wruck, *Die syrische Provinzialprägung von Augustus bis Traian*, p. 182, no. 37. Gr. 11.40.

**17-19.** Similar to the preceding but the date is Z above O P. Struck 60-1 A.D. Wruck, *loc. cit.*, p. 182, no. 38. Gr. 10.94; 11.04; 11.47.

**20.** Similar but the date has been obliterated.

Gr. 13.62.

Galba. 68-69 A.D.

## TETRADRACHM

**21.** *Obv.* Inscription completely obliterated. Laureate head to r. Star in front.

*Rev.* ΕΤΟΥΚ ΝΕΟΥ ΙΕΡΟΥ Β. around an eagle facing to l. upon a thunderbolt. Palm branch upright in l. field. Struck Dec. 68 A.D. cf. Wruck, *loc. cit.*, p. 184, nos. 57-58. Gr. 12.84.

Titus, under Vespasian

## TETRADRACHM

**22.** *Obv.* ..ΤΟΚΡ..... Laureate head to r. Worn and double struck.

*Rev.* ΕΤΟΥΣ Γ ΙΕΡΟΥ. Eagle with open wings to l. Over its l. wing appear the tops of a quiver and bow. In l. field, club. Struck 72-73 A.D. Wruck, *loc. cit.*, variety of p. 188, no. 100. Gr. 10.46.



## GROUP III

## ROME

Trajan. 98-117 A.D.

## DENARIUS

23. *Obv.* IMP CAES NER TRAIAN OPTIM AVG GERM DAC. Laureate, draped bust to r.

*Rev.* PARTHICO P M TR P COS VI P P S P Q R. In the exergue: FORT RED. Draped figure of Fortuna seated to l. holding rudder in r. and cornucopiae in l. Struck 114-7 A.D. Mattingly and Sydenham, Roman Imperial Coinage, II, p. 266, no. 315. Gr. 267.

Marcus Aurelius. 161-180 A.D.

## DENARIUS

24. *Obv.* M ANTONINVS AVG TR P XXVIII. Laureate head to r.

*Rev.* IMP VI COS III. Winged Victory, holding wreath in outstretched r. and trophy in l., advancing to r. Struck Dec. 173—June 174 A.D. Mattingly, etc., *loc. cit.*, III, p. 235, no. 287. Gr. 247.

25. *Obv.* M AVREL AN—TONINVS AVG. Laureate head to r.

*Rev.* TR P XXXIII IMP VIIII COS III P P. Mars standing r., holding spear and leaning on shield. Struck Dec. 178—Spring 179 A.D. Mattingly, etc., III, p. 244, no. 396. Gr. 268.

Lucius Verus. 161-8 A.D.

## DENARIUS

26. *Obv.* IMP L VERVS AVG. Laureate head to r.

*Rev.* PROV DEOR TR P III COS II. Providentia standing l., holding globe and cornucopiae. Struck Dec. 162—Autumn 163 A.D. Mattingly, etc., III, p. 253, no. 491 (Variety). Gr. 3.00.

Commodus. 180-192 A.D.

#### DENARIUS

27. *Obv.* COMM ANT AVG P BRIT. Laureate head to r.

*Rev.* P M TR P X IMP VII COS IIII P P. In the exergue, ANN. Annona standing l., holding statuette in r., cornucopiae in l.; to l., modius; to r., prow. Struck 184-5 A.D. Mattingly, etc., III, p. 377, no. 106. Gr. 2.97.

Crispina

#### DENARIUS

28. *Obv.* CRISPINA AVGVSTA. Draped bust to r.

*Rev.* CERES. Ceres standing l., holding wheat ears and torch. Mattingly, etc., III, p. 398, no. 276. Gr. 2.77.

### GROUP IV

#### MEDIOLANUM (?)

Valerian Sen. 253-260 A.D.

#### ANTONINIANUS

29. *Obv.* Only faint traces of the inscription and features remain visible.

*Rev.* SALVS AVGG. Salus standing r., feeding serpent in arms. Assigned to the mint at Mediolanum. Mattingly, etc., V<sup>1</sup> (Webb), p. 57, no. 250-1. Gr. 2.57.

The composition of our hoard, as made evident by the preceding catalogue, is, to say the least, rather extraordinary. Even more surprising (if that were possible) is the list of things we should have every right to expect to be present but which are curiously lacking. And yet, as stated above, the coins had been corroded into a single compact mass and this unbroken mass—just as it was lifted from the ground by the discoverers and sent to New Haven for cleaning and study—proves conclusively that the hoard must be considered as having reached us absolutely intact.

The Fifth Dura Hoard, as it lies before us, is composed of four distinct groups of coins well separated from each other by their denominations and the date of their several coinings. First, both in point of time and number, come the fifteen posthumous tetradrachms bearing the name and types of the Seleucid king Philip Philadelphus. It has been shown<sup>3</sup> by the present writer that these tetradrachms represent a late re-issue of Seleucid type brought out by the city of Antioch in the days of Julius Caesar and Octavian his successor. The dates which these coins bear are calculated according to the Era of Pharsalia established by Julius Caesar himself. In the Dura Hoard we find the more or less legible dates Δ, S, Θ, IB, OI, K, KA (or KΔ?), SK—representing various years between 46/5 and 24/3 B.C. Even the specimens with illegible dates (nos. 12-15) can scarcely be later than 17/6 B.C. which represents the latest known date which has come down to us of

<sup>3</sup> The Pre-Imperial Coinage of Roman Antioch, *Num. Chron.*, Fourth Ser., Vol. XIX, 1919, pp. 69-113.

this particular series. Our coins are all very much worn.

The second group comprises seven imperial tetradrachms, also from the Antioch mint,<sup>4</sup> bearing portraits of Nero, Galba, Titus, together with dates running from S/HP (59-60 A.D.) under Nero to "ETCVS I (72-73 A.D.) under Titus. These coins, too, all show evidences of long circulation and, in fact, are hardly less worn than nos. 1 to 15.

Thus between the first and second groups of tetradrachms our hoard displays a hiatus of over eighty years duration unrelieved by even a single specimen of the rather common tetradrachm struck at Antioch by Augustus bearing his portrait and a representation of the seated Tyche. This fact, while curious, is not without precedent. The identical phenomenon recurs in a much larger hoard from Nineveh which has recently been published by Dr. Hill.<sup>5</sup> In this there turned up no less than one hundred and twenty-one of the posthumous Seleucid type tetradrachms from Roman Antioch, together with a few tetradrachms of Nero (the earliest, as in our hoard, dated S/HP or

<sup>4</sup> In this regard only the coin of Titus (no. 22) is open to doubt. Most authorities, including Dieudonné (*Rev. Num.*, 1909, p. 458 ff.), Macdonald (Hunterian Collection, III, p. 160, no. 138) and Wruck (*Loc. cit.*, pp. 126-130) assign it and similar pieces to Antioch, while Rouvier (*Journal International d'Archéologie Numismatique*, Vol. 6, 1903, p. 329, no. 2273) gives it to Tyre. Hill, *Brit. Mus. Cat.*, Greek Coins of Phoenicia, pp. cxxxvii-cxxxix, is distinctly hesitant about attributing these pieces to Tyre. The "club and bow" behind the eagle on the coin of Titus described by Hill (*ibid.*, p. cxxxviii), which would thus certainly seem to suggest Tyre, is really a *quiver* and bow.

<sup>5</sup> G. F. Hill, A Hoard of Coins from Nineveh, *Num. Chron.*, 5th Ser., Vol. XI, 1931, pp. 160-170.

59/60 A.D.) and his successors. Apparently, then, in and about the Mesopotamian region these posthumous Seleucid coins continued to circulate in considerable numbers down to a comparatively late date.<sup>6</sup>

The third group contains six imperial denarii from the mint at Rome, all being in a good, some in even a fine state of preservation. The earliest is a denarius of Trajan issued between the years 114 and 117 A.D.; the latest are a denarius of Commodus (struck in 184-5 A.D.) and an undated one of his wife Crispina issued about the same time. In other words we have here a group of six coins, better preserved than any of those in the first and second groups, struck between the years *circa* 114 and 185 A.D. Not only do they thus cover a period of some seventy years but their earliest is later by over forty years than the latest issue (no. 22) of the immediately preceding group. This contrasts with the above-mentioned Nineveh hoard which contained an unbroken series of denarii running from Galba to and including the dynasty of the Severi and thus are closely linked, in point of time, with the accompanying imperial tetrachms of the Antioch mint.

<sup>6</sup> It is extremely interesting to find these posthumous tetrachms of Philip Philadelphus in two late Roman hoards, evidently circulating alongside of Imperial Roman tetrachms from the Antioch mint. Their presence in these particular hoards further substantiates the evidences, deduced by the present writer from their types and style alone, that they must have been issued posthumously some years after the fall of the Seleucid empire and after the last direct scion of the royal house of Seleucus had long been dead. In fact, this late revival under Roman rule of Seleucid types with royal portrait, name and titles constitutes one of the curiosities of numismatics.

Lastly, and strangest of all in view of what precedes, comes the solitary antoninianus (no. 29) bearing the portrait of Valerian Senior. This coin is known<sup>7</sup> to have been struck between the years 253 and 260 A.D. and is thus nearly seventy years later than the latest issues (nos. 27 and 28) of Group III! Thus the Fifth Dura Hoard represents a rather curious state of affairs somewhat difficult to explain. According to the excavators and to Dr. Bellinger who had charge of the cleaning, there can be no doubt but that the coins had all been amalgamated by corrosion into a single lump, thus proving beyond any possible doubt that the hoard before us is intact and that the coins were buried at one and the same time.

Leaving aside no. 29, whose present poor condition allows of no conjecture as to its original state of preservation when buried, the three first groups show varying stages of wear proportionate to their several ages. Thus, Group I is entirely composed of very much worn coins. Group II, as a whole, is somewhat less worn and one of its specimens (no. 19) is actually still in a very good state of preservation. Group III is composed of even better preserved coins than the immediately preceding lot, some of the pieces showing but slight signs of circulation. If the hoard had ended here one would be justified in considering it to have been put away some time in the reign of Commodus, or shortly afterwards. One would sur-

<sup>7</sup> Voetter in *Numismatische Zeitschrift*, vol. xxxii, 1900, pp. 138-141. Because of the badly damaged obverse it is impossible to assign this coin to its particular position (whether early or late) in the issue. Probably it was struck between 253 and 255 A.D. The coin is attributable to Mediolanum, not to Tarraco as Voetter supposes.

mise that its former owner had felt a peculiar predilection for tetradrachms of the posthumous Philip Philadelphus type and had thereunto added others of Nero, Galba and Titus, the while (following some idiosyncrasy of his own) rejecting the at least equally common tetradrachms of Augustus, Vespasian and Trajan—to say nothing of the somewhat scarcer but far from rare tetradrachms of Domitian, Nerva, Hadrian, Marcus Aurelius and the young Commodus. Neither any available analysis nor the experiences of many years of active collecting would suggest that the rejected types represent coins of poorer alloy than those actually chosen. The denarii (nos. 23-8) accompanying the tetradrachms were probably selected because of their generally good condition, earlier denarii from Nero to Trajan being by *circa* 190 A.D. presumably already in a noticeably more worn condition. The total absence of denarii of Hadrian and Antoninus Pius would suggest that the accumulation of Group III, at least, took place after the Parthian conquests of Lucius Verus and the absorption of the Dura-Europos district into the Roman Empire.

The unexpected—and one might almost say unwelcome—presence of Valerian's lone coin (no. 29) considerably alters the whole aspect of the hoard. Because of the presence of this one piece the hoard could not possibly have been put away finally until the middle of the third century A.D. And if "buried" at this late date how is one to account for its consequently somewhat extraordinary composition? The first and second Dura hoards<sup>8</sup> recently published by

<sup>8</sup> Two Roman Hoards from Dura-Europos, Numismatic Notes and Monographs No. 49, by Alfred R. Bellinger. New York, 1931.

Dr. Bellinger give an excellent idea of what must assuredly have constituted the ordinary circulating medium at Dura-Europos immediately preceding the fall of the city in 256 A.D. Barring copper coins representing "small change," the general circulating medium evidently consisted almost exclusively of Antiochene tetradrachms from Septimius Severus to Trebonianus and Volusianus, together with imperial "antoniniani" from Caracalla to Valerianus and Gallienus. With the exception of no. 29 not one of these coins is represented in the present hoard. It is therefore difficult to believe that any of our twenty-eight pieces were actually circulating as late as *circa* 250 A.D. But granting this for sake of argument, then we must admit that the former owner of our hoard had evidently rejected all Syrian and Imperial Roman issues later than Septimius Severus (perhaps because of their increasingly inferior metal) and, further, had made a very rigid selection of the earlier currency passing through his hands, laying aside only tetradrachms struck before *circa* 73 A.D. (not including those of Augustus, Vespasian, etc.) and certain denarii of the two last Antonines. All of which is decidedly strange.

In the light of the above mentioned Nineveh Hoard, and especially in the light of two further hoards since found in Dura,<sup>9</sup> our Nos. 1 to 28 inclusive form a group distinctly reminiscent of an epoch earlier than the date at which our hoard was actually abandoned. Nos. 1-28, then, when taken as a group, appear clearly

<sup>9</sup> The Third and Fourth Dura Hoards, Numismatic Notes and Monographs, No. 55, by Alfred R. Bellinger. New York, 1932.



anomalous in a hoard from *circa* 256 A.D. and so would seem to suggest either that the last owner of our hoard (he of the "Antoninianus" of Valerian) had inherited<sup>10</sup> it or had been the lucky finder of an earlier accumulation, and that, into this—for some reason known only to himself—he had placed a coin of his own time and generation.

In any case, the presence of Valerian's coin is absolutely definitive and fixes the date *post quem* for the final abandonment of our hoard. It must therefore be compared with the "First and Second Dura Hoards" described by Dr. Bellinger and proved by him to have been buried not earlier and probably, also, not later than *circa* 256-7 A.D. Because of the coins of Valerian and Gallienus which they contained, because of the overwhelming evidence presented by similar coins found scattered over the entire site of

<sup>10</sup> Admitting this much, should we logically go still further, attempting to account for the *three* distinct groups into which nos. 1-28 seem to fall? Is it that we have in these coins, as it were, a family estate handed down from father to son for many generations—in other words the savings of a whole dynasty of dwellers in Dura? Were nos. 1-15 accumulated by some great-great-grandfather living in the days of Augustus? Following this line of speculation then, the succeeding heir must have flourished under the Flavians and added nos. 16-22 to the family fortune, leaving it, in turn, to some descendant who in the days of the later Antonines added his modest savings of six denarii (nos. 23-28) to the family estate. The final heir, perhaps a bit of a spendthrift, added but one debased coin to the accumulated pile—only to abandon the lot in the terror of the final days of Dura's existence. But this grows rapidly more improbable, and as there exist numerous evident objections (such, for instance, as the different stages of wear exhibited by the several groups) the whole somewhat amusing speculation had best be rejected without further comment.

Dura-Europos, and because of the apparent date of destruction of associated buildings and inscriptions, the interment of these several hoards must be directly connected with the final assault and capture of the fortress of Dura by the Persians<sup>11</sup> under Sapor I—an event which for historical reasons could only have taken place in the year 256-7 A.D. At that time the city was sacked and burned by the enemy and ever afterward remained deserted except, perhaps, for a small Persian military post, or such wandering Arab tribes as from time to time may have used it as a temporary camping site.

However curious the actual composition of our present hoard may seem, we must take it as chance has decreed—gratefully accepting the lone coin of Valerian as definite proof that our treasure had been finally abandoned in 256-7 A.D. The word *abandoned*, not *buried*, is here advisedly used as the finder's report clearly states that the little mass of conglomerated coins was actually found ".... in the street ..... against the wall of the house at the floor level ....." Obviously the hoard would not have been placed deliberately in such a position but, more probably, had been lost there by some terrified citizen fleeing the enemy, or inadvertently dropped by an over-burdened looter in the frenzied confusion attending the sack of the city by the victorious Persian soldiery.

<sup>11</sup> The Excavations at Dura-Europos. Preliminary Report of Third Season, 1929-1930, pp. 163-4. New Haven, 1932.

Numismatic Notes and Monographs. No. 49. Two Roman Hoards from Dura-Europos, p. 55.



# DURA HOARD V



1.



3.



24.



2



8.



9.



25.



26



27.



23.



28.



16.



17.



21.



22.











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# NUMISMATIC NOTES AND MONOGRAPHS

No. 59



## THE TRIPOLIS HOARD OF FRENCH SEIGNORIAL AND CRUSADER'S COINS

BY  
DOROTHY H. COX

THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
NEW YORK  
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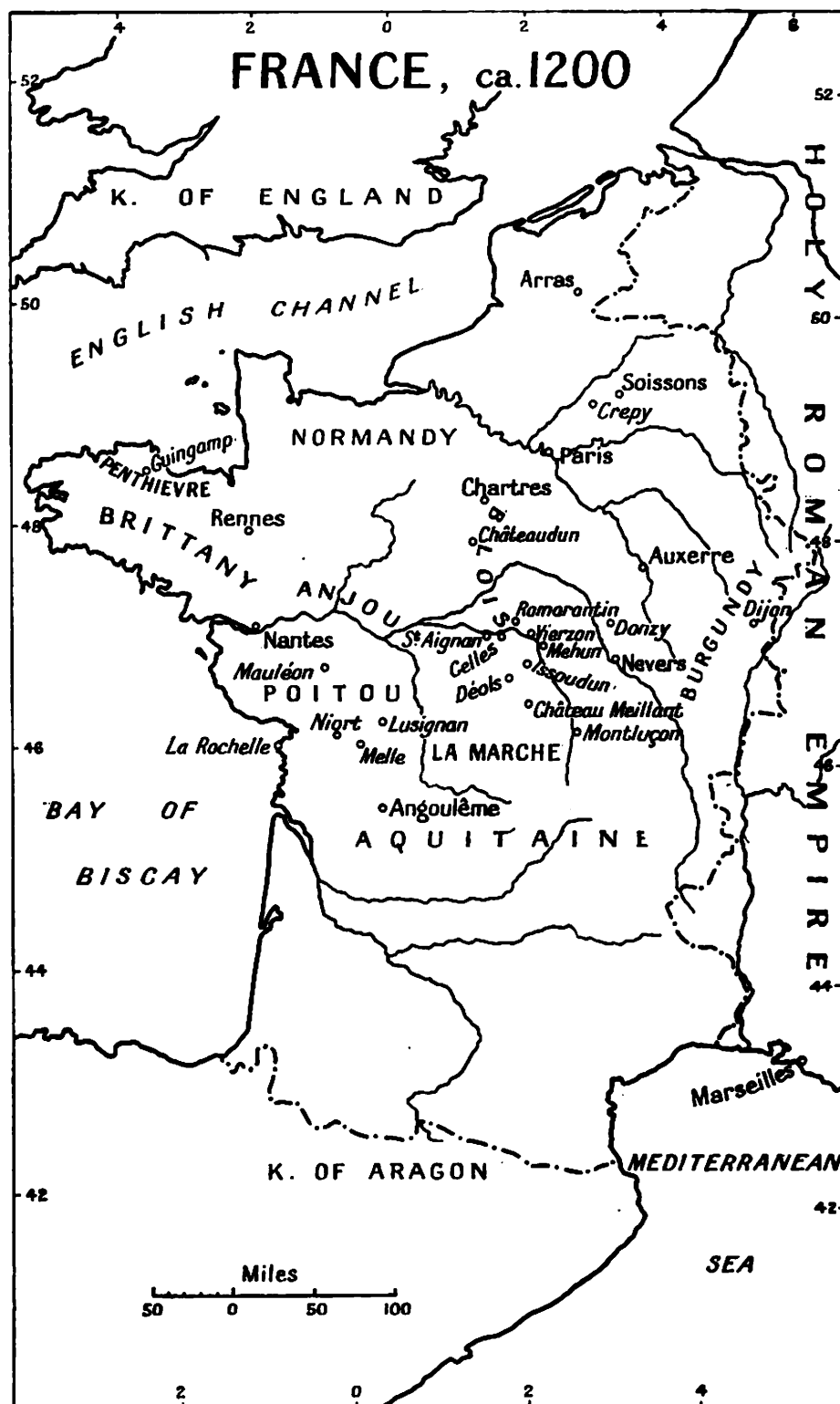
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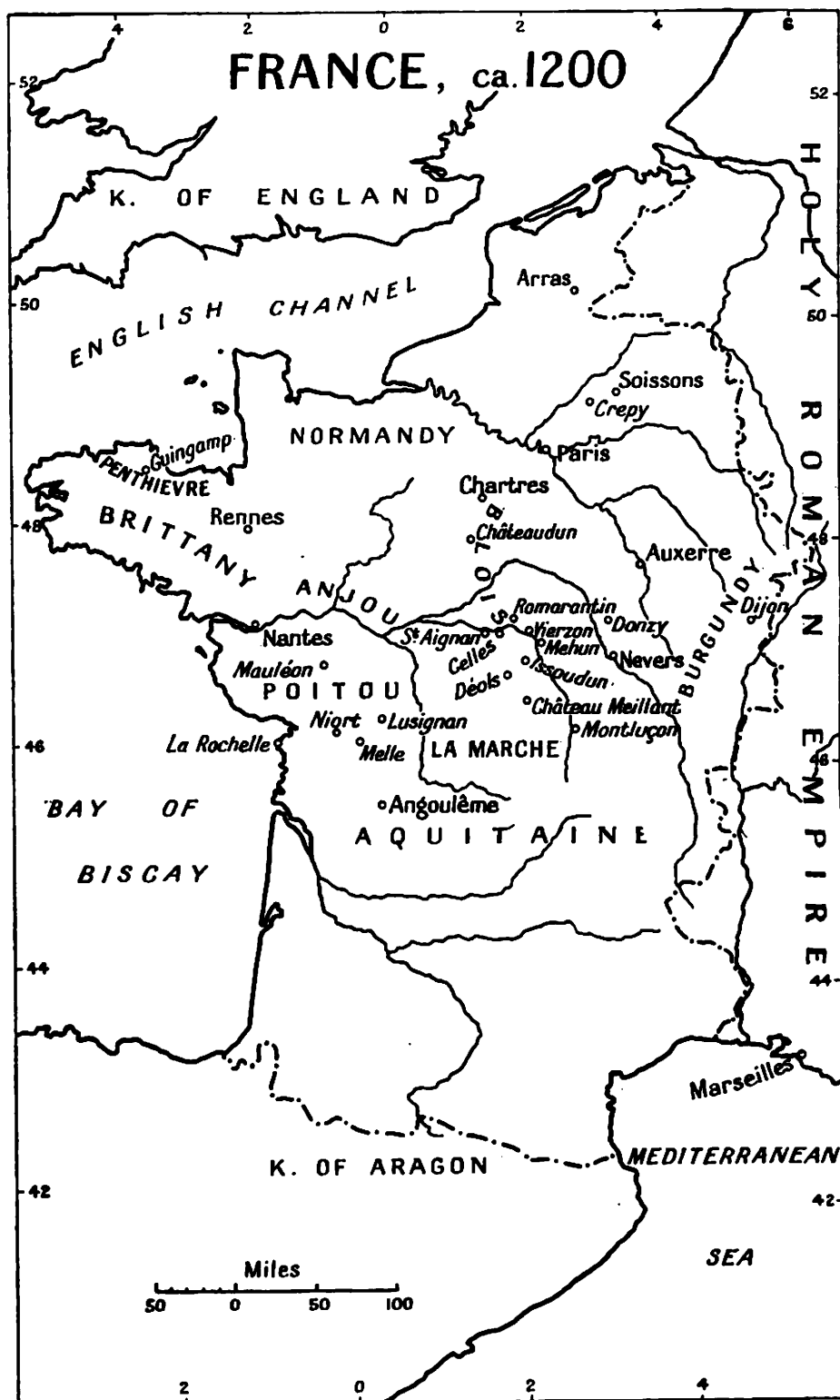


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# THE TRIPOLIS HOARD

## FRENCH SEIGNIORIAL AND CRUSADERS' COINS

D. H. Cox

In 1929 a hoard of deniers was purchased in Beyrout. It was said to have been found at Tripolis, a town in Syria about two miles from the Mediterranean coast and lying at the foot of a spur of Mt. Lebanon.\* When purchased, the hoard was not complete, but we are assured that it contained no coin larger than the denier and that such coins as had been removed were chosen at random. The latter statement is no doubt true as the coins were so covered with corrosion that they were practically illegible until cleaned. The hoard consists of about 3500 silver and billon pieces; about 1700 were coins of the Crusaders and 1800 French feudal coins. Since the coins latest in date are those struck by John of Brienne at Damietta, the probable burial date of the hoard is 1221.

\* I wish to express my thanks to Professor Alfred R. Bellinger who secured this hoard for me, to Mr. E. T. Newell and Mr. Howland Wood of the American Numismatic Society and to Professors A. B. West and John La Monte of the University of Cincinnati for their encouragement and advice.

## 2 THE TRIPOLIS HOARD

### FRANCE: ROYAL

Philip II (1180–1223)

		<i>Number of coins</i>
<i>Obv.</i>	·PHILIPVS REX. In field <b>FRA OON</b>	1
<i>Rev.</i>	†ARRAS CIVIS. Cross pattée with fleur-de-lis in first and fourth quarters. AR obol, (sim. to Hoffman, Pl. VIII, 4). PLATE I, 1.	

### FRANCE: FEUDAL

#### BRITTANY

RENNES: Alain IV (1084–1112)

<i>Obv.</i>	†A(LA)NVS. □V. Rosette.	1
<i>Rev.</i>	†REDONIS CIV. Cross pattée. AR denier (similar to Poey d'Avant 246 and Bigot 104). Alain IV accompanied Robert duke of Nor- mandy on the Crusades in 1093.	

RENNES: XII Century

<i>Obv.</i>	†DVX BRITANE. Cross ancrée.	1
<i>Rev.</i>	†RED(O)NIS CIVI. Cross pattée. AR denier (P. d'A. 292).	

RENNES: Conan III (1112–1148)

<i>Obv.</i>	†CONANVS. IVS in field.	1
<i>Rev.</i>	†(RE)DONI∞. Cross pattée. Billon denier (Bigot 126). PLATE I, 2.	

# THE TRIPOLIS HOARD 3

Geoffroy II duke of Brittany  
(1171-1186)

*Number  
of coins*

*Obv.* +GAVFRIDVS. Cross with trefoil ends. 5

*Rev.* +DVX BRITANI. Fleur-de-lis with  
four annulets.

Billon deniers (Eng. & Ser. p. 386). PLATE  
I, 3.

GUINGAMP: Counts of Penthievre  
(1093-1205)

1046

*Obv.* +STEPHAN COO. Cross pattée with  
stars in first and second quarters.

*Rev.* +GVINGAMP. Barbarous head.

Billon deniers. PLATE I, 4.

These coins, minted in great quantities, enjoyed wide commercial favor in the XII and early XIII centuries. It is, therefore, impossible to assign them to any particular person or persons who might be responsible for their appearance in the East.

The variety of these deniers in the hoard is very great and exact parallels for all cannot be found in either Poey d'Avant or Bigot (*Monnaies de Bretagne*).

The great majority, (ca. 750) belonging to the type illustrated by P. d'A., pl. XXVII, No. 9 and Bigot, pl. VIII bis, No. 5, are assigned by the latter to Geoffroy-Boterel III, who died in 1205. The state of preservation of these coins, which is on the whole excellent, would confirm the idea that they are of about that date. The next most common type, with

## 4 THE TRIPOLIS HOARD

variations, is found in P. d'A. XXVII, No. 8, and Bigot, VIII bis, No. 8 and is attributed by the same author to Henry I (1138–1184). Types represented in lesser quantities are P. d'A. XXVII, Nos. 4, 5, and Bigot, VIII bis, Nos. 2 and 3. There are other varieties which cannot be placed accurately in any of the accepted categories.

The problem now is to explain the presence of so many of these coins in the hoard. There seems to be general agreement that the cross with two stars which appears on all of our deniers indicates a date before 1200. Such dating would probably indicate that these coins were brought to the East in the Third Crusade. Had this been the case one would not expect them to make up the dominant element in a hoard buried after the Fifth Crusade.

If, however, we suppose these coins to be of later date and brought out on the Fifth Crusade, there remains the problem of why none of the coins of Alain is included.

On both the Third and Fifth Crusades Brittany was well represented.

Taking part in the Third Crusade we find:

Baron Raoul II de Fougères, seneschal of Brittany under Geoffrey Plantagenet.

Alain IV, Viscount of Rohan (son-in-law of Raoul II).

André de Vitry, nephew of the same, and brother-in-law to Pierre Mauclerc.

Viscount Adam de Léon.

On the Fifth Crusade:

Juhel, Count Mayenne.

Hervé de Léon (Hervé was at Damietta in 1218).

Eudes de la Roche Derien got money from Godfrey, Viscount de Rohan, when he went to Damietta in 1218.

### ANJOU

1040–c.1246

In name of Geoffroy (5 coins)

	<i>Number of coins</i>
<i>Obv.</i> +GOSRFIDVS CO. Cross pattée, A and $\omega$ pendant in third and fourth quarters.	1
<i>Rev.</i> +VRBS°A°IDCCV. Monogram. (P. d'A. 1481.)	
<i>Obv.</i> +GOSRFIDVS COS. Same type.	2
<i>Rev.</i> +VRBS AIDCCV. Same type. (P. d'A. 1482.)	
AR deniers. Unclassified.	2

In name of Foulques (122 coins)

1. *Obv.* +FVLCO COMES. Cross pattée with A and  $\omega$  pendant in second and fourth quarters. 2  
*Rev.* +VRBS ANDEGAVS. Monogram.  
(P. d'A. 1506.)
- 1a. *Obv.* Legend and type same. 15  
*Rev.* Similar, but conjoined N and D  
(ND). PLATE I, 5.

## 6 THE TRIPOLIS HOARD

	<i>Number of coins</i>
2. <i>Obv.</i> Legend and type same.	10
<i>Rev.</i> +VRBS ANDEGAVIS. Same type. (P. d'A. 1499.)	
2a. <i>Obv.</i> Legend and type same.	15
<i>Rev.</i> ND on reverse. Same type.	
3. <i>Obv.</i> Legend and type same.	1
<i>Rev.</i> +VRBS ANDEGAV. Same type.	
4. <i>Obv.</i> Legend and type same.	1
<i>Rev.</i> +VRBS ANDEGAVI. Same type. (Similar to P. d'A. 1500.)	
5. <i>Obv.</i> Legend and type same.	1
<i>Rev.</i> +2IVΛΘΞΔΙΑ 2BIV. Mono-gram reversed. PLATE I, 6.	
6. <i>Obv.</i> Legend and type same. A and ω in third and fourth quarters.	1
<i>Rev.</i> Legend and type same as 1a.	
7. <i>Obv.</i> Legend and type same as 6.	3
<i>Rev.</i> Legend and type same as 2.	
8. <i>Obv.</i> Legend and type same as 1.	18
<i>Rev.</i> +VRBS AIDCCSV. Same type. (P. d'A. 1492)	
8a. <i>Obv.</i> Legend and type same.	1
<i>Rev.</i> +VRBS AIDCC2V. Same type.	
8b. <i>Obv.</i> +FVLCO COME2. Same type.	14
<i>Rev.</i> Legend and type same as 8.	
8c. <i>Obv.</i> Legend and type same as 8b.	1
<i>Rev.</i> +VRBS AIDCCS(V). Same type.	



# THE TRIPOLIS HOARD 7

- |   | <i>Number<br/>of coins</i> |
|---|----------------------------|
| 8d. <i>Obv.</i> +FVLCO COME $\omega$ . Same type.                                   | 2                          |
| <i>Rev.</i> +VRB $\omega$ AIDCCSV. Same type.<br>(P. d'A. 1507.)                    |                            |
| 9. <i>Obv.</i> +FVLCO COMES. With A and $\omega$ in fourth and second quarters.     | 5                          |
| <i>Rev.</i> +ANDEGAVENSIS. Same type.<br>(P. d'A. 1513.)                            |                            |
| 9a. <i>Obv.</i> Legend and type same.   | 8                          |
| <i>Rev.</i> +ANEGAVENSIS. Same type.<br>(P. d'A. 1512.)                             |                            |
| 9b. <i>Obv.</i> +FVLCO COME $\varnothing$ . Same type.                              | 2                          |
| <i>Rev.</i> +ANEGAVENSIS $\varnothing$ . Same type.                                 |                            |
| 10. <i>Obv.</i> +FVLCO COMES. A and $\omega$ in third and fourth quarters.          | 1                          |
| <i>Rev.</i> +ANDEGAVENSIS. With O at top of monogram.                               |                            |
| 11. <i>Obv.</i> +FVLCO COME $\omega$ . A and $\omega$ in third and fourth quarters. | 1                          |
| <i>Rev.</i> +ANDEGAVENSIS. Same type.<br>(P. d'A. 1494.)                            |                            |
| 12. <i>Obv.</i> +FVLCO COMES. A and $\omega$ in third and fourth quarters.          | 1                          |
| <i>Rev.</i> +ANDEGAVENSIS. Same type.   |                            |
| Unclassified with many reverses of type 9. Billon deniers.                          | 19                         |

These coins were probably brought to the East during the Third Crusade when Richard the Lion-hearted was Count of Anjou.

## 8 THE TRIPOLIS HOARD

### BLOIS AND CHARTRES

- |  | <i>Number<br/>of coins</i> |
|--|----------------------------|
| <i>Obv.</i> +ARTIS CIVITAS. Plain cross, pellet<br>in first quarter. | 1                          |
| <i>Rev.</i> Barbaric head, r. PLATE III, 6.                          |                            |
| <i>Obv.</i> +CARTI(S CI)VITAS, pellet in third<br>quarter.           |                            |
| <i>Rev.</i> Same type. (P. d'A. 1738.)<br>Billon obols.              | 1                          |

These coins may have been taken on the Third Crusade by Thibaut V, Count of Blois, who was at Acre.

Louis, Count of Blois and Chartres took the Cross in 1199 and went on the Fourth Crusade.

### CHATEAUDUN

- |  |   |
|--|---|
| <i>Obv.</i> +DVNIOSTII. Cross pattée.                                | 1 |
| <i>Rev.</i> Barbaric head.   |   |
| Billon denier. (Similar to P. d'A. 1839 but of<br>size of No. 1838.) |   |

From general character and wear this would seem contemporary with the Chartres obols.

A viscount of Chateaudun was at Damietta in 1190. The editor of Ambroise' account of the Third Crusade gives the name Raoul but it may have been Hugh V.

## DÉOLS

Raoul VI (1160–1176)

(See Rev. Num. 1883, p. 228)

*Number  
of coins**Obv.* +R̄DVLFVS. Cross pattée.

27

*Rev.* +DE DOL|∞ (or ∞). Six-pointed star  
with annulet in center.

Billon deniers. (P d'A. 1946.) PLATE II, 1.

William I (1203–1233), (5 coins)

1. *Obv.* +GVILERMVS. Cross pattée with 2  
fleur-de-lis in first and fourth quarters.*Rev.* +DE DOLIS. Six-pointed star with  
fleur-de-lis in center.

Billon deniers. (P. d'A. 1963.)

2. *Obv.* Same legend and type, but with fleur- 3  
de-lis in second and third quarters.*Rev.* Same legend and type.

Billon deniers. (Caron, 130.)

The two deniers of type P. d'A. 1963, show  
much greater wear than the Caron 130 variety.André de Chauvigny who married the  
daughter of Raoul VI, and whose heirs became  
Lords of Chateauroux, was a companion of  
Richard on the Third Crusade. He became  
legendary for his deeds of valor.

## ISSOUDUN

Raoul III (1199–1212)

*Obv.* +RADVLFFV∞. Cross pattée. 2*Rev.* +EXOLDVNI. Gothic M with bar  
above and cross below. PLATE II, 3.

## 10 THE TRIPOLIS HOARD

*Number  
of coins*

William of Chauvigny (1212–1220)

*Obv.* +GVILERIIVS. Cross pattée with 1  
fleur-de-lis in second and third quarters.

*Rev.* +EXOLDVNI. Six-pointed star with  
fleur-de-lis in center.

AR deniers. (Similar to P. d'A. 1996.)

The deniers of William de Chauvigny for Déols (Caron 130) and the one listed above for Issoudun are entirely similar except for the reverse inscription. Can their rarity be explained as a special issue struck for the Crusades?

### HOUSE OF DONZY

Hervé III (1160–1194) (259 coins)

*Obv.* +GOSEDVS COS. Cross pattée, A in  
third and ω in second quarter. 259

*Rev.* +GIEMIS CA. Monogram of Foulques  
of Anjou with cross substituted for O.

Billon deniers. A. de Barthélemy (Rev.  
Num., 1885, p. 359.) (P. d'A. 1998.) PLATE  
III, 5.

Hervé III claimed Gien and seems to have had St. Aignan as well. He had two sons, William Goeth who followed Philip to Acre where he was killed, and Hervé IV who also went on the Third Crusade. Renaud de Chatillon, prince of Antioch (1149–1159) and resident in the East till 1187 was also a native of Gien.

# THE TRIPOLIS HOARD 11

## SAINT-AIGNAN

(6 coins)

After 1160 and contemporary with  
Robert de Celles (1178–1189)

*Obv.* +SANCTI ANIANI. Cross pattée with pellet center, pellets in all four quarters. *Number  
of coins*  
4

*Rev.* +CAS T RVM. Castle surmounted by cross in legend.

Billon deniers. (P. d'A. 2054 and Caron 150.) PLATE II, 5.

*Obv.* +VNCTI ANIANI. Type same. 2

*Rev.* +CΛS T RVM. Type same.

Billon deniers. (P. d'A. 2055.)

For explanation of these deniers in the East see above.

## CELLES AND MEHUN

(6 coins)

Robert de Celles (1178–1189)

*Obv.* +ROB' DE CELL'. Cross pattée, S in first and fourth quarters, pellets in second and third. 5

*Rev.* Crude helmeted head r.

Billon deniers. (P. d'A. 2057.) PLATE II, 6.

*Obv.* +ROBERTV. Device obliterated. 1

*Rev.* +DE CELLI. Device obliterated.

Billon denier. (P. d'A. 2058.) PLATE II, 7.

## 12 THE TRIPOLIS HOARD

*Number  
of coins*

As both E's on the reverse are round, this is more probably of the type illustrated by P. d'A. than that by Caron (Pl. VII, 4).

### ROMORANTIN

(2 coins)

Thibaut V, Count of Blois: ( -1191)

*Obv.* +T CO REMOR'. Cross pattée. 2

*Rev.* Barbaric helmeted head r.

Billon deniers. (P. d'A. 1896.) PLATE II, 2.

The similarity of these coins to those of Robert de Celles (P. d'A. No. 2057) was remarked by E. Cartier (Rev. Num. 1845) and he suggests that these deniers were minted to pay the expenses of the Crusade undertaken by Thibaut together with Raoul, son of Robert de Celles. They were at the siege of Acre under Philip.

### VIERZON

(3 coins)

*Obv.* +VIRSIONE. Cross with wedge-shaped arms radiating from annulet, fleur-de-lis in second and third quarters. 1

*Rev.* Y-shaped pattern with fleur-de-lis in the three spaces.

AR denier. (Similar to P. d'A. 2027.)

PLATE II, 4.

*Obv.* +VIRSIOME. Cross pattée, fleur-de-lis in first and annulet in fourth quarter. 2

*Rev.* Legend and type similar to above.

AR deniers. (P. d'A. 2026.)

The deniers of type P. d'A. 2026 show a good deal of wear and may be attributed to Hervé I (1144–1164) but the denier of type 2027 is so fresh that it seems more reasonable to attribute it to Hervé II who may well have minted some of this type in addition to those subscribed with his name, which are rare.

A Jean de Vierzon accompanied Louis de Blois on the Fourth Crusade, and a certain Hervé de Vierzon was killed at Damietta in the Fifth.

### CHATEAU-MEILLANT

(2 coins)

Ebbes de Déols, end of XII century

*Obv.* †EBO'DE DOLIS. Cross pattée with 1  
little annulets at extremities.

*Rev.* MELIANVS. Facing head. PLATE III,  
2.

*Obv.* †EBO DE DOLIS. Type similar. 1

*Rev.* Legend and type same.

Billon deniers. (P. d'A. 2063.)

These coins are conspicuous for their disparity of weight. The first weighs 0.7 gramme, the second 1.4 grammes. P. d'A. gives 0.9 gramme as average.

The House of Blois was further represented on

## 14 THE TRIPOLIS HOARD

*Number  
of coins*

the Third Crusade, by a nephew of Thibaut's, Henry II of Champagne who married Amaury I's daughter Isabelle and became King of Jerusalem for a time.

### PRIORY OF SOUVIGNY

(1 coin)

1st period (994–1213)

*Obv.* SES·M̃IOLVS. Facing head, crozier 1  
to left.

*Rev.* +SILVINIACO. Plain cross.

AR denier. (P. d'A. 2172.) PLATE III, 1.

### AUXERRE

*Obv.* +ALTISIODOR. Cross pattée, pellets 1  
in first and fourth quarters.

*Rev.* No inscription, cross pattée surrounded by beaded circle; between this circle and similar one at edge of coin are four groups of three pellets, at the extremities of the arms of the cross.

Billon denier. (P. d'A. 5893.)

The condition of this coin suggests that it may have been minted in the time of Agnès and Pierre de Courtenay (1181–1192)—who was emperor-elect of Constantinople—and that it may have found its way to the East in the Fourth Crusade.



## NEVERS

(16 coins)

Hervé de Donzy (1199–1223)

*Number  
of coins**Obv.* +ERVIS CONS. Plain cross. 16*Rev.* +NITERSGIS. Fleur-de-lis and sickle.

Billon deniers. (P. d'A. 2138.) PLATE III, 3.

One of these coins has the device on both sides obliterated; the cross completely, the sickle not quite so thoroughly.

Hervé of Nevers and Hugh Lusignan sailed from Genoa August 1, 1218. In 1219, Hervé, suspected of treason at Damietta, was expelled from the Crusades.

## MONTLUÇON

Guy de Dampierre (1202–1213),

(18 coins)

*Obv.* +GVIDONI $\omega$ . Cross pattée with A in first and  $\omega$  in fourth quarter. 2

*Rev.* +MONLVCON. Monogram.  
(P. d'A. 2204.)

*Obv.* Same legend and type with A in fourth and  $\omega$  in first quarter. 8

*Rev.* Legend and type same.  
(P. d'A. 2205.) PLATE III, 4.

*Obv.* Same legend and type with A in third and  $\omega$  in second quarter. 8

*Rev.* Legend and type same.  
Billon deniers. (P. d'A. 2207.)

## 16 THE TRIPOLIS HOARD

*Number  
of coins*

The Dampierre family seems to have been imbued with the spirit of the Crusades.

There is a record of Guy II, Lord of Bourbon, who took part in the Third Crusade. If the record was written after the fact this may refer to our Guy who became Lord of Bourbon in 1196 on his marriage to Matilde, or four years after Acre.

A Renaud de Dampierre went on the Fourth Crusade in the train of Thibaut de Champagne.

Before Damietta in 1219 we find three Dampierres listed as being from Champagne, Renard, Richard and Endes. Count Renard (probably the same as the Renaud of the Fourth) went to Acre in 1201 with about three hundred French knights.

### POITOU

Richard the Lion-hearted

(1169-1196), (66 coins)

- |                |   |   |
|----------------|---|---|
| 1. <i>Obv.</i> | †RICARDVS REX. Cross pattée.                            | 6 |
|                | <i>Rev.</i> PIC TAVIE NSIS. Inscription in three lines. |   |
| 2. <i>Obv.</i> | Type same.  | 3 |
|                | <i>Rev.</i> Type same with dot at top.                  |   |
| 3. <i>Obv.</i> | Legend and type same.                                   | 3 |
|                | <i>Rev.</i> Type same with dot at bottom.               |   |
| 4. <i>Obv.</i> | Legend and type same.                                   | 4 |
|                | <i>Rev.</i> Type same with dot top and bottom.          |   |

# THE TRIPOLIS HOARD 17

		<i>Number of coins</i>
5. <i>Obv.</i>	Legend and type same.	1
	<i>Rev.</i> ·PIC· TAVIE NSIS	
6. <i>Obv.</i>	Legend and type same.	10
	<i>Rev.</i> ·PIC TAVIE NŞIS	
7. <i>Obv.</i>	Legend and type same.	15
	<i>Rev.</i> P·IC· TAVIE NSIS.	
8. <i>Obv.</i>	XRICARDVΣ REΛ. Type same.	1
	<i>Rev.</i> P·IC TAVIE NΣIS.	
9. <i>Obv.</i>	+RICARDVΣ REΛ. Type same.	3
	<i>Rev.</i> P·IC· TAVIE NSIS	
10. <i>Obv.</i>	Legend and type same as 1.	1
	<i>Rev.</i> P·IC TAVIE NSIΣ	
11. <i>Obv.</i>	Legend and type same as 1.	8
	<i>Rev.</i> PIC TAVIE SIS·	
12. <i>Obv.</i>	+RICΛ'RDVΣ REΛ. Same type.	1
	<i>Rev.</i> PIC T VIE NSI'Σ	
13. <i>Obv.</i>	+RICARDVS REΛ. Cross pattée with annulet in second quarter.	1
	<i>Rev.</i> Legend and type same as in 1.	
14. <i>Obv.</i>	Legend and type same, but annulet in third quarter.	5
	<i>Rev.</i> Legend and type same as in 1.	
15. <i>Obv.</i>	+RICARDVΣ REΛ. Annulet in third quarter.	2
	<i>Rev.</i> Legend and type same. PLATE IV, 2.	
16. <i>Obv.</i>	Inscription as in 1, annulet in third quarter.	1
	<i>Rev.</i> ·PIC TAVIE NS'IS	

## 18 THE TRIPOLIS HOARD

- |  |                            |
|--|----------------------------|
|  | <i>Number<br/>of coins</i> |
| 17. <i>Obv.</i> †RICARDVS RE†. Annulet in<br>fourth quarter. | 1                          |
| <i>Rev.</i> PIC TAVIE NSIS                                   |                            |
| Billon deniers. For varieties see P. d'A.<br>2505-2568.      |                            |

Following the classification given by G. Musset (*Rev. Num.* 1891 p. 239), type 1 above should be assigned to the mint at Montreuil-Bonnin, types 2-10 to the mint at Niort, types 11 and 12 to the mint at St. Jean-d'Angély and the remaining types, 13-17, to the mint at La Rochelle.

### AQUITAINE

Richard the Lion-hearted

- |  |   |
|--|---|
| 1. <i>Obv.</i> †AQVITANIE. Cross pattée.                         | 1 |
| <i>Rev.</i> RICA RDVS in two lines, cross above,<br>omega below. |   |

Billon denier. (P. d'A. 2768.) PLATE IV, 3.

In *Le Monnayage de Richard Cœur-de-Lion*, G. Musset assumes that the nail which appears on some of the deniers of Richard has a religious significance and indicates a mint at the Abbey of Charroux. None of these deniers appears in the hoard while all the other mints are represented. We might be justified therefore, in supposing that the mint was established after Richard's return from the Crusades, when he was sorely pressed for money, to pay ransom to Henry VI for his release from captivity.

## LA MARCHE

Hugh IX (1199–1219), (5 coins)

	<i>Number of coins</i>
<i>Obv.</i> HV $\odot$ ONIS. Cross pattée with annulet in second quarter.	2
<i>Rev.</i> MET $\Lambda$ LO, in two lines, no device visible. PLATE IV, 4.	
<i>Obv.</i> +HV $\odot$ ONIS. Type same.	
<i>Rev.</i> MET $\Lambda$ LO, in two lines, star above. PLATE IV, 5.	1
<i>Obv.</i> +HV $\odot$ ONIS. Type same.	
<i>Rev.</i> MET $\Lambda$ LO in two lines, star below.	1
<i>Obv.</i> +HV( $\odot$ )ONIS. Type same.	
<i>Rev.</i> LICI $\odot$ N $\bar{A}$ in two lines with crescent below.	1

Billon deniers. PLATE IV, 6.

The C in the first line of the reverse is above the alignment of the LI and I and may be the upper half of an S the lower half of which is obliterated. The spelling LISIGNAN was a common form of the name Lusignan—and the final N we suppose omitted for lack of space.

De Cessac (*Mélanges Num.*, 1878, p. 361) and Caron (p. 143) tentatively attribute coins reading LODOVICVS ECOLI $\omega\omega$ IME (formerly attributed by P. d'A. to Angoulême) to Hugh IX de Lusignan count of La Marche.

Their reasons are that Hugh IX is known to have minted money which was not inscribed

with the word **MARCHE** or **MARCHIE**, since that word did not appear on the coins until 1211; that coins reading **LODOVICVS ECOLI<sup>ss</sup>IME** are found in great numbers in the district of La Marche; and that the type was chosen because Hugh claimed heritance to Angoulême through his wife Matilde, daughter and heir of Vulgrin, Count of Angoulême.

The coins here illustrated are, I believe, unpublished. Except that they were not found in their home district, they fit admirably as coins of Hugh IX. They bear the name of Hugh and are similar in fabric and workmanship to the coins of Richard and of Savary de Manléon with which they are roughly contemporary.

P. de Cessac (Rev. Num., 1886, p. 61) states that Hugh went to the Crusades with Richard the Lion-hearted and was devoted to John Lackland during the first years of his reign, but became his mortal enemy when the King carried off Isabelle, only daughter and heir of Aimar count of Angoulême. Hugh then became a partisan of Philip Augustus to whom he remained loyal until 1214 when he again turned to John.

No charter has been found showing that Philip granted Hugh right of coinage. There is

ample proof that he minted long before 1215. De Cessac concludes that he may have usurped this right, and, as was commonly done under the circumstances, started minting with an anonymous type, in this case the **LODOVICVS ECOLISIME** coins. If, however, we assume that Cartier and Lecointre-Dupont were correct in ascribing this privilege to a grant made by John Lackland, then we must date the concession as from the year 1199 or 1200.

The presence of these coins in the Holy Land in a condition showing as much or more wear than the deniers of Richard may indicate that, contrary to accepted ideas, Hugh IX received the right of coinage from Richard before 1191. Such a grant may have been made by Richard to Hugh as a bribe to join him on the Crusades and to furnish money to help defray the cost of the expedition, or he may have sold the right with the same purpose in mind.

A suitable type for Hugh to have minted under such a grant was the **METALO** type described above. It is the traditional type for Poitou, and bears the star. Melle, at which such coins would most logically be struck, probably belonged to the Lusignan family at that time. (Raoul, brother of Hugh IX was Lord of Melle.) The coin reading **LISIGNA** was

probably struck at Lusignan itself where Poey d'Avant and Fillon (P. d'A II p. 43) believe there was a mint. Both of these types I believe were minted during the period in which the House of Lusignan was pro-English, since the METALO coins have a star and the LUSIGNAN coin a crescent, both accessory devices of the English coat-of-arms, and were meant originally as a Crusaders' issue. After John ran off with Isabella (1200) Hugh may have changed the type of his coins and minted the LODOVICVS ECOLIΩΩIME deniers.

Caron and Poey d'Avant, assuming that Hugh IX died in 1208, (according to *L'art de verifier les dates*) ascribe the following coin to Hugh X since it seems to be the coin described in the *Chronique de Saint Martial de Limoges* by Bernard Itier as the new money of La Marche dating from 1211.

Obv. +VGO COMEΩΩ.. Cross pattée. 1

Rev. +MARCHIE. Two crescents and two annulets; at the center a crosslet.

Billon denier. (P. d'A. 2609.)

If, however, we follow de Cessac, Rev. Num. 1886 and Engel et Serrure *Numismatique du Moyen Age* and assume that Bernard Itier in his chronicle is correct in saying that Hugh IX sailed from Genoa in 1218 and was killed at



*Number  
of coins*

Damietta August 2, 1219, then this coin must be ascribed to Hugh IX who was count of La Marche from 1211–1218 during which time Caron (p. 44) assumes these coins to have been issued.

**MAULÉON**

Savary (1215–1236), (2 coins)

*Obv.* +∞ΛVARICV∞. Cross pattée. 1

*Rev.* MET ΛLO in two lines, crescent above, and below.

(P. d'A. 2602.)

*Obv.* +∞ΛVARICV∞. Cross pattée. 1

*Rev.* ·PIC TAVIE IISIS in three lines.

Billon deniers. Both weighing .750 gramme.  
PLATE IV, 7.

The coins of Savary are rare and only two types have been recorded, the METALO deniers listed here and coins with the name MALLEONIS in circular inscription and an ∞ in center (P. d'A. No. 2603). We add here a third type with the inscription PICTAVIENSIS.

There are two documents relating to this coinage, both coming from John Lackland and dating from May and August 1215. The first of these implies that Savary had already been minting and merely instructs the seneschals of Poitou, Anjou and Gascony to accept the deniers of Savary as legal tender if of Poitevin

weight. The second confirms his right of coinage and grants it to his heirs in perpetuity.

In 1205 (*Encyclopaedia Britannica*, 1911 ed. XVII p. 904) Savary was appointed seneschal of Poitou by John. In 1209 (Caron p. 141) he was granted the right of coinage. In 1212 his services were bought by Philip Augustus under whom he served until 1215, when he returned to John. In the same year Savary became Lord of Mauléon and Viscount of Thouars on the death of his brother William. In 1216 he took the Cross, left for the Holy Land with the Count of Chester in 1219, and was present at the taking of Damietta. He died in 1236.

Savary is supposed to have minted at both La Rochelle and Niort. I would ascribe the **PICTAVIENSIS** coin to the years 1209–1212, when Savary was seneschal of Poitou, and to the mint at La Rochelle, though coins of this type were minted at both Niort and La Rochelle under Richard. The **METALO** deniers may then have been struck 1212–1215 at Niort which is near Mauléon, the modern Châtillon-sur-Sèvre, and in the district of Melle. After 1215 and the reconciliation with John and the inheritance of the title, Savary probably issued the **MALLEONIS** deniers abandoning

*Number  
of coins*

the Poitevin type. It is worth noting that none of these later coins was found in the hoard.

**PERIGORD**

*Obv.* +LODO|EV∞. Cross pattée, S in second 2  
quarter, V in third quarter.

*Rev.* +EGOL|∞∞|ME. Five annulets in  
field.

Billon deniers. (P. d'A. 2676.) PLATE V, 1.

**BESANÇON**

(Archbishopric): Anonymous,  
XII century

*Obv.* .PTH(OMAR)TIR. Hand raised in 1  
benediction.

*Rev.* +B(I)SV(NTIV)M. Cross pattée.  
Billon denier. (Worn and double struck.)  
(P. d'A. 5374.)

**BURGUNDY**

DIJON: Hugh III (1162–1193) (180 coins)

*Obv.* +VGO DVX BVRGꝰDIE. Double cro- 180  
zier, pellet above, annulet with billets to r.  
and l. below.

*Rev.* +DIVIONENꝰIS. Cross pattée.  
Billon deniers. (P. d'A. 5676, under Hugh V)  
PLATE IV, 1.

For attribution to Hugh III see Maxe-Werly  
(*Rev. Num.* 1883 p. 232).

*Number  
of coins*

When Philip Augustus returned to France, in 1191, he left Hugh III, Duke of Burgundy in command in the East. In 1193 Hugh died at Acre.

### ABBÉY OF ST. MÉDARD

Near Soissons

- Obv.* +SES MEDARDVS. Cross pattée with 2  
crescents in first and fourth quarters.  
*Rev.* +'NAITSABES TS. (St. Sebastian re-  
trograde) Crozier between two flags.  
Billon deniers. (P. d'A. 6518.) PLATE III, 7.

### VALOIS

CRÉPY: Matthew de Beaumont  
(1177–1192)

- Obv.* +MĀDEVVS COMES. Cross, with C in 1  
first and fourth quarters and pellets in second  
and third.  
*Rev.* +CRISPETVM. In field CRE SP(I) in  
two lines, two annulets above and two below.  
Billon denier. (Similar to P. d'A. 6477.)  
This makes a total of 1796 French coins.

### OTHER EUROPEAN COINS

#### SWABIA

Otto IV (1198–1218)

- Obv.* Emperor riding l. with falcon on l. hand. 1

*Number  
of coins*

*Rev.* Crowned horse r. with head turned  
back. Border of stars and dots.  
AR denier. (Cappe I p. 151, 677.) PLATE  
V, 2.

### ITALY

Asti (ca. 1200)

*Obv.* +CVNRADV $\omega$  II. REX in field. 1  
*Rev.* +A $\omega$ TEN $\omega$ I $\omega$ . Small cross pattée.  
Billon. (Corpus nummorum italicorum, Vol.  
II, p. 11, 16.) PLATE V, 3.

Henry VI (1193–1197)

*Obv.* HE ·IMPER'ATOR·. Cross pattée, stars 1  
in second and third quarters.  
*Rev.* C·IMPER'ATRIX·.  $\overline{A}P$  in field.  
Probably struck in Brindisi. Billon denier.  
(Spinelli p. 112, 1.) PLATE V, 4.  
Possibly brought to Cyprus at the investiture  
of Amaury I in 1197.

Frederick II, King of Sicily.

*Obv.* +FREDERICVS·R·. Eagle facing, head 1  
l.  
*Rev.* +CONSTANTIA·R·. Cross pattée with  
pellets in corners and curved ornaments at  
ends of cross.  
Billon denier. (Spinelli p. 122, 2.) PLATE  
V, 5.

# 28 THE TRIPOLIS HOARD

## DIVISION OF FRENCH COINS BY CRUSADES

	Pre-third Crusade	Third Crusade	Fifth Crusade	Uncertain	Total
Philip Augustus.....		1*			1
Brittany:					
Alain IV.....	1*				1
Rennes (Anon.).....				2	2
Conan III.....				1	1
Geoffroy II.....				5	5
Guingamp.....				1046	1046
Anjou.....		127*			127
Chartres.....		2*			2
Chateaudun.....		1*			1
Déols:					
Raoul VI.....		27*			27
William.....			5		5
Issoudun:					
Raoul III.....			2		2
William.....			1		1
Donzy, Hervé III.....		259*			259
St. Aignan.....		6*			6
Celles, Robert.....		6*			6
Romorantin, Thibaut V.....		2*			2
Vierzon.....			3*		3
Chateau-Meillant.....				2	2
Souvigny.....				1	1
Auxerre.....				1	1
Nevers.....			16*		16
Montluçon.....			18*		18
Richard I.....		67*			67
La Marche, Hugh IX.....		5*	1*		6

DIVISION OF FRENCH COINS BY CRUSADES—*Concluded*

	Pre-third Crusade	Third Crusade	Fifth Crusade	Uncertain	Total
Mauléon, Savary.....			2*		2
Perigord.....				2	2
Besançon.....				1	1
Burgundy, Hugh III.....		180*			180
Abbey of St. Médard.....				2	2
Valois.....				1	1
	1	683	48	1064	1796

The asterisk indicates that the issuer of the coin or someone in his immediate family or entourage was present in the East.

There is also one silver denier which is illegible, but probably French.

Many of the French coins seem to have had the cross effaced by filing (sometimes the other device as well), leaving the inscription intact. This is possibly the work of Moslem fanatics. One occasionally sees the same thing on Byzantine coins which have been kept by Turks as "lucky pieces."

The table on page 28 shows the probable dates at which the various French coins of this hoard came to the East.

From this summary we see that with the exception of the deniers of Guingamp, the coins found in the greatest number all seem to date from the Third

## 30 THE TRIPOLIS HOARD

Crusade. I am, therefore, inclined to believe that the Guingamp coins also were brought out in the Third Crusade. A relatively small number of coins in the hoard belong to the Fifth Crusade. To account for this we must remember that though trade was increasingly active between the East and the West throughout the twelfth century it was not until the end of that century that commercial facilities were perfected. Letters-of-credit were by no means unknown in the twelfth century and earlier, but by the thirteenth they were much more widely current. It, therefore, seems probable that the earlier Crusaders brought out greater sums in specie than their followers.

From the extraordinary number of Cypriote coins in the hoard, we may not be far wrong in assuming that the owner of this hoard had his letter-of-credit to someone in Cyprus, where the great Italian bankers had some of their principal branches.



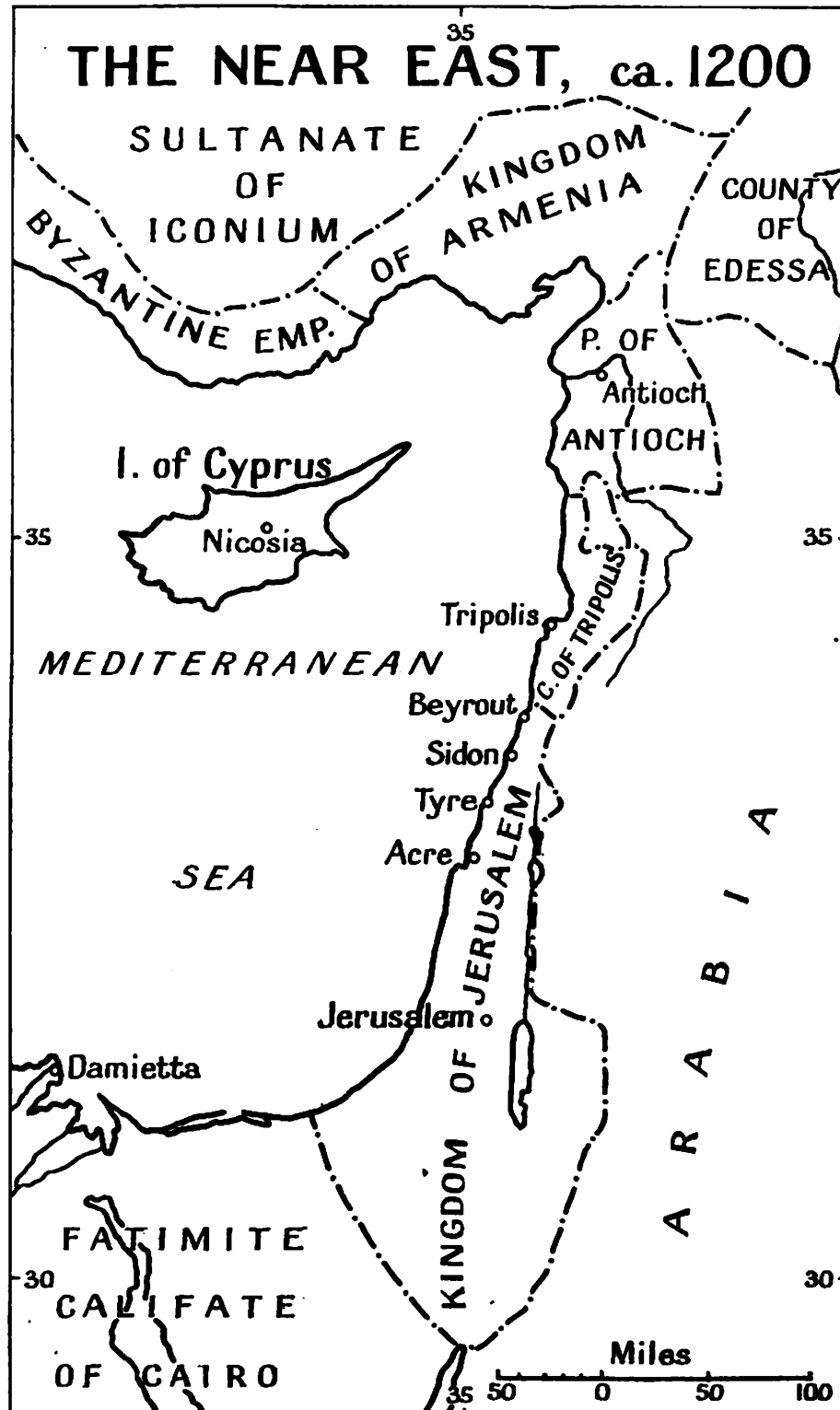
## CRUSADERS' COINS

Before listing the coins of Cyprus and Jerusalem a few words about the history of these places will be necessary.

From 1186–1192, Guy de Lusignan was King of Jerusalem. In 1192, at the death of his wife, Queen Sibylle, and of his children, Guy's succession was disputed. First Conrad de Montferrat and then Henri de Champagne were chosen to succeed him. Disgusted by the course affairs had taken, Guy proposed to Richard the Lion-hearted, whom he had assisted in the conquest of Cyprus, that he be allowed to take over that island from the Templars who had failed in its government. To this the King consented, and Guy received the island for the same sum the Templars had agreed to pay, 100,000 besants, reimbursing the Templars the amount they had already paid Richard. With the island he was also granted the right of coinage.

From May 1192–April 1194 Guy was lord of Cyprus. Although he was no longer King of Jerusalem in fact, he retained the title. In documents of the time he is known as "Rex Guido de Luziniaco, Dominus Cypri." Guy persuaded other Crusaders to settle in the island by granting them large fiefs. When he died in 1194, the Latin population was considerable. His brother Amaury succeeded him.

Amaury was an excellent administrator. He increased the property of the state by reducing the



possessions of the feudal lords to whom Guy had given dangerously large fiefs. He organized reforms in the clergy; he established import duties and by his energetic management put the country on a sound financial basis. From a simple fief bought for 100,000 gold besants he transformed it into an independent power with an annual revenue of 200,000 besants. (A revenue of 300 besants was deemed sufficient to constitute a Knight's fief.)

In his dealings with the lords Amaury showed himself more jealous of his sovereign authority than his brother. Yet he had no claim to the title of King as Guy had had. To remedy this, in 1195, he decided to ask the German Emperor, Henry VI, who was then the acknowledged suzerain of all Christian princes, for the crown and royal investiture of Cyprus. He received word that his request had been granted when, in the summer of 1197, the bishops of Brindisi and Trani arrived in Cyprus bringing the scepter. Late the following September, Conrad, Bishop of Hildesheim, came with the crown and the coronation took place. Almost immediately afterward in the same year, Amaury married Isabelle, Queen of Jerusalem. They were crowned (probably at Tyre) in 1198 and for the rest of his life he lived in Syria.

As King of Jerusalem he did not relinquish his title King of Cyprus, and on his death, April 1205, Hugh, his eldest son by his first wife, Eschive, inherited the Crown of Cyprus. Isabelle kept the Kingdom of Jerusalem.

Hugh was only 10 years old when his father died, and in accordance with feudal law, his nearest relative was appointed regent for him. This was his brother-in-law Gautier de Montbéliard, husband of his older sister, Bourgogne de Lusignan. Gautier was in some ways an excellent administrator. Though strict, grasping and unpopular, commercially and financially the island prospered under his rule. When Hugh came of age he banished his brother-in-law because he resented his discipline. And when he left, Gautier carried off, it is said, 200,000 gold besants as legitimate profit of his tutelage and administration of the property of the Crown.

The remarkable thing about the history of Cyprus in relation to its known coinage is that for the period of two able administrations, the time of Amaury and Gautier, when Cyprus was growing more prosperous yearly, no coins are known to have been minted in the island. It is to fill this gap that I wish to reattribute some already known coins.

While King of Jerusalem, Guy issued a base billon denier having on the obverse the head of the King and the words REX GUIDO and on the reverse a domed building (the Dome of the Rock) and DE IERUSALEM. The Cyprus coins resemble these in size, in a rather broad flan, and in the character of the letters cut in similar low relief, and the deniers of this hoard are also of billon. There are, however, copper deniers of Cyprus in the name of Guy which are not

represented in this hoard. These certainly belong to the reign of Guy. They have on one side a cross and on the other the star which appeared on the "Tour Davit" deniers of Jerusalem and would have been a logical device for him to adopt. Also, since Cyprus was not then a place of importance it is only to be expected that they should have been struck in copper.

The type with the gate which we have in this hoard, I think, was probably struck by Amaury in his brother's name, during the years 1194-1197. More coins of this type are known than of those with the star (Schlumberger lists eight varieties of the former and only two of the latter). Since we assume them struck over a longer period and during a time of greater activity, that is to be expected. The quantity of the coins with the name of Guy compared to the number bearing the name of Hugh found in this hoard (188-653) makes it unlikely that they were all issued (with another type not represented) during a reign of less than two years and at a date more than twenty years earlier than the burial of the hoard.

As for the reason for Amaury's striking coins in his brother's name, we must remember his jealous disposition and his ambition for the kingly title. The coins of Guy had a regal character (REX GVIDO) however misleading. This Amaury could not hope to maintain if his own name appeared on the coins. The change from "Rex" to "Dominus" would have

been a reflection on his prestige as well as on that of the island. There was the necessity for a currency, and an improved one. This Amaury produced changing the type to distinguish the new coins of billon from the copper of the preceding reign, but leaving the inscription unaltered.

There are in this hoard eleven anonymous deniers of Cyprus, which, since they resemble the foregoing pieces in every particular except that *DE CIPRO* is repeated on both sides of the coin, must also be attributed to Amaury. If one does not assume them to be mere accidents, the most logical time in his reign to account for them is in the brief period after he was assured he would receive his investiture and before the coronation, that is the months of August and September 1197.

It is probable that when the coronation took place negotiations were already under way for his marriage to Isabelle. In the interval between his coronation and marriage it is possible that there were coins inscribed with his name and title, King of Cyprus, and that none of these has come to light. It is also possible that knowing he would soon be able to call himself King of Jerusalem (which though a poorer kingdom was a more important title) he forebore making a change in the currency. After his marriage he minted only as King of Jerusalem and these coins were current in both kingdoms.

After Amaury's death Gautier de Montbéliard was

regent; and again during an able administration the mint of Cyprus was supposedly idle. Both Schlumberger and de Vogüé remark on this saying that "as is well known" the regent in the Levant had the right of coinage. De Mas Latrie in his "Histoire de l'île de Chypre," citing his authority (Bibliothèque de l'Ecole des Chartes, 1<sup>re</sup> serie, t. V, p. 136-137) says the regent had every kingly privilege but the right of coinage. Hugh's deniers bear two types of inscription, some have the legend HVGONIS REX and the others read simply HVGO REX or REX HVGO. The first are cruder in workmanship and have on the reverse DE CIPRO as did the earlier coins of Cyprus. The deniers with REX HVGO read CYPRI on the reverse. I would attribute the former to the regency because of the possessive form of the name, the old form of the reverse and because of the smaller number of these coins found in the hoard.

All deniers bearing the name of Amaury for Jerusalem were attributed to Amaury II by de Saulcy in his *Numismatique des Croisades*. Subsequently, on evidence presented by de Vogüé, Schlumberger attributed them to Amaury I. The evidence of this hoard, I believe, settles the question beyond doubt. The presence of coins of John of Brienne struck in Damietta (1219), the quantity of Cyprus coins (1194-1218), together with only one worn coin of the Baldwins of Jerusalem (1173-1186) make it unreasonable to assign them to Amaury I (1162-1173). Apart from this, the evidence still seems to me in favor of de

Saulcy's attribution which gives an uninterrupted series for Jerusalem and makes the use of each type continuous with no reversion to an earlier type after a period of twenty-five years disuse.

De Vogüé's argument (*Rev. Num.*, 1864, p. 276) was based on his finding a seal, which, from the character of the lettering and style of engraving he attributed to Amaury I. Neither the engraving nor the lettering is remarkable nor easily dated, but the D's are of the Latin type appearing on the coins of Guy de Lusignan and following rulers, not the Gothic D of the deniers of the Baldwins. Having on this evidence attributed the seal to Amaury I, de Vogüé then deduces from the fact that the Holy Sepulcher is similarly represented on both the seal and the coins that the coins must also belong to Amaury I, and points out that this convention for portraying the Holy Sepulcher was known as early as the time of Baldwin III. On this seal one will also notice the Tower of David and the Dome of the Rock, both in a form similar to that in which they appear on the coins of the Baldwins and of Guy. To find a personal seal with these three buildings each portrayed in the manner in which it appears on a coin, and to antedate the seal to the coins seems to be anticipating types to a remarkable and incredible degree. How much more likely that the seal was later than the coins, or contemporary with the last type.

There remain M. Schlumberger's two additional arguments. His objection that if these deniers were



minted by Amaury II, his title, King of Cyprus, would appear on the coin as well as King of Jerusalem is sound and did not escape the notice of de Saulcy, who, though he could find no valid reason for the omission, still attributed the coins to Amaury II.

The third argument is more easily met. In the *Numismatique de l'Orient Latin* it is pointed out that the rare deniers of Guy as King of Jerusalem were of very base billon, almost pure copper, and that since the country was no more flourishing in the time of Amaury II than it had been ten or fifteen years earlier, one would expect his coins to be of similarly poor fabric. They are not; they are of fine quality billon. (Schlumberger says almost pure silver. An assay indicated 31–33% silver. See Appendix.) Guy's coins for Cyprus, which, we have previously attributed to Amaury were of good alloy (ca. 20% silver) but the greater weight of the Cyprus coins make the silver content of these deniers practically the same as the Jerusalem coins. (See Appendix). Whether one admits the attribution or not the fact remains that in Cyprus immediately before Amaury II became King of Jerusalem coins of good quality were being minted. When Amaury married Isabelle the resources of Cyprus automatically became the resources of Jerusalem. Consequently as good coins could be produced for Jerusalem as for Cyprus. In fact Amaury rather than Hugh of Tiberius was chosen as successful candidate for the hand of Isabelle and the title of King of Jerusalem, because the

resources of Cyprus were greater than those of Champagne.\*

And as we have shown deniers of the same standard were minted in the two places. The reason for the reduction in weight and the increase in the percentage of silver is difficult to account for unless it was due to the legal necessity or a personal desire to meet the standard of fineness of the coins of Baldwin IV which these deniers approximate.

The question as to whether these coins were current only for the mainland or for both the mainland and Cyprus is difficult to settle finally, although the uniform silver content of the coins of the two places make it seem probable that they were interchangeable. Also since it was the wealth of the island which made the minting of these coins possible, it is probable that they were current there; certainly the island had no other contemporary currency. Of all the deniers of Jerusalem, those of Amaury are the most numerous today. To produce this quantity, it seems to me the mint at Cyprus may well have been used to supplement the one at Tyre, even if only to produce coinage for local use.

It is probable that Amaury raised the percentage of silver in order to mint coins of the same standard as those of Baldwin on the mainland and reduced the weight of those struck in Cyprus so that the amount of silver in the Cyprus denier would remain

\* Livre d'Eracles, p. 423.

constant and the deniers formerly issued by him in the name of Guy would be on a par with the new currency.

The question as to whether these coins were current only for the mainland or for both the mainland and Cyprus has been much debated. Of the various writers who have concerned themselves with this period, Buchon alone has definitely attributed the deniers of Amaury II of Jerusalem to him as King of Cyprus. De Mas Latrie and de Saulcy attribute the coins to Amaury II but for Jerusalem only. In weighing deniers of Amaury whose provenience is known to be Jerusalem, we find an average weight of ca. 0.9 gramme. The heaviest of his coins in this hoard (which is certainly Cypriote in character) weighs 0.721 gramme; the average weight of these coins is .502 gramme. From these figures we must conclude that coins of this type were in use and minted both on the island and on the mainland but on two distinct standards of weight, and from the condition of the coins in this hoard (a large percentage of which are clipped) it would seem that where deniers of Jerusalem weight drifted to the island those coins were clipped, probably legally, also possibly by the enterprising merchant, to meet the lower Cypriote weight. Many of the deniers in this hoard which have undergone extensive clipping still exceed 0.6 gramme in weight which is impossible in case of coins whose original weight did not exceed 0.7 gramme.

In ascribing these coins to Amaury I, Schlumberger and de Vogüé, as historians, were probably not

uninfluenced by the fact that during the reign of Amaury I, Jerusalem reached the height of its prosperity. It is beyond the scope of this paper to account for an absence of coinage during that period, but it should be noted that it is an open question whether the Crusader States were then independent or whether during the reign of the Emperor Manuel and King Amaury I (approximately 1144–1176) they acknowledged the suzerainty of Byzantium. (See A. A. Vasiliev *History of the Byzantine Empire*, vol. II, p. 81 and J. L. La Monte, *Byzantium*, 1932, p. 253). To support this view one can point to a similar gap in the coinage of Antioch and the wide-spread use of the coins of Manuel. Perhaps no other Byzantine bronze struck after the VII century is found in so great an abundance, so generally scattered and in so many varieties. This statement is given weight by the fact that in a list of Byzantine coin hoards compiled by the American Numismatic Society the coins of Manuel appear in more hoards than the coins of any other emperor after Heraclius. The coinage of Tripolis presents no real stumbling block to this theory since the deniers of Raimond III with a reign of only thirteen years are much more plentiful today than those ascribed to Raimond II with a reign of thirty-six years (1151–1187). The numismatic evidence on this subject is at least interesting and a further study of the Crusaders' coins may well throw some light on the relation of those states to the Byzantine Empire.

## CYPRUS

Amaury (1194–1197), (188 billon  
deniers)

Struck in the name of Guy.

- |   | <i>Number<br/>of coins</i> |
|---|----------------------------|
| 1. <i>Obv.</i> +R $\epsilon$ X GVIDO. Gate with three battlements, six-pointed star inside.*  | 93                         |
| <i>Rev.</i> +D $\epsilon$ CI $\cdot$ PRO. Cross pattée, pellets in first and fourth quarters, crescents in second and third quarters.<br>(See Schlum., p. 184.) |                            |
| 2. <i>Obv.</i> Legend and type same.  | 56                         |
| <i>Rev.</i> Legend and type same but pellets in second and third quarters, and crescents in first and fourth quarters.<br>(Schlum., p. 184.)                    |                            |
| 3. <i>Obv.</i> Legend and type same.  | 5                          |
| <i>Rev.</i> Legend and type same but pellets in first and fourth quarters, and annulets in second and third.  |                            |
| 4. <i>Obv.</i> +R $\epsilon$ X GVI $\cdot$ DO. Type same  | 6                          |
| <i>Rev.</i> +D $\epsilon$ CI $\cdot$ PRO. Type same as 1.   |                            |
| 4a. <i>Obv.</i> +R $\epsilon$ X G(VI)DO. Type same.   | 1                          |
| <i>Rev.</i> Legend and type same.   |                            |
| 5. <i>Obv.</i> +R $\epsilon$ X GVI $\cdot$ DO. Type same.   | 4                          |
| <i>Rev.</i> Legend and type same as 2.  |                            |

\* Where obverse or reverse are not entirely legible I have assigned the coin to class 1 or 2 according to reverse arrangement.

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		<i>Number of coins</i>
6.	<i>Obv.</i> +R·E::X GVIDO. Type same. <i>Rev.</i> +DE CI°PRO. Type same as 2. PLATE V, 6.	1
7.	<i>Obv.</i> +ODIVΘ XΘЯ. Type same. <i>Rev.</i> Legend and type same as 2. PLATE V, 7.	1
8.	<i>Obv.</i> +REX GVIDO. Type same as 1. <i>Rev.</i> +OЯґ°IO ΘD. Type same as 2. (2 of these are from same die.) (Schlum, p. 184.)	4
8a.	<i>Obv.</i> Legend and type same. <i>Rev.</i> Legend and type same, but pellets in first and fourth quarters, crescents in second and third.	2
9.	<i>Obv.</i> (+R)EX° GVI·D(O). Type same. <i>Rev.</i> (+)DE CI°PRO. Pellets in first and fourth quarters, crescents in second and third.	1
10.	<i>Obv.</i> +REX GVI(D)O. Type same. <i>Rev.</i> +DE CI°PRO. Pellets in first and fourth quarters, crescents in second and third.	1
11.	<i>Obv.</i> +REX GVIDO. Gate with four battlements and eight-pointed star. <i>Rev.</i> +DE CI°PRO. Pellets in first and fourth quarters, crescents in second and third.	3
12.	<i>Obv.</i> +REX GVIDO. Gate with three battlements, but pellet in place of star.	4

# THE TRIPOLIS HOARD 45

*Number  
of coins*

- Rev.* Legend and type same as in 1, with dot or annulet. PLATE VI, 1.
13. *Obv.* +R̄EX GVIDO. Gate with three battlements, filled with grill, no star nor pellet. 5
- Rev.* Same as 1. PLATE VI, 2.
- 13a. *Obv.* Legend and type same. 1
- Rev.* Same as 2.

Amaury (1197), (11 coins)  
(Anonymous)

1. *Obv.* +D̄C CI·PRO. Gate with three battlements and eight-pointed star. 3
- Rev.* +°D̄C CI·PRO°. Cross pattée, pellets in second and third quarters, crescents in first and fourth. PLATE VI, 3.
2. *Obv.* +D̄C CI·PRO. Gate with three battlements and six-pointed star. 8
- Rev.* +D̄C CI·PRO. Type same as 1.

Hugh (1205–1210), (63 coins)  
Regency of Gautier.

Class I (63 coins) 37

1. *Obv.* VGONIS R̄E+. Cross pattée, crescents in first and fourth quarters, pellets in second and third.
- Rev.* +DE·CI·PRO. Gateway with three battlements and door.

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*Number  
of coins*

2. *Obv.* Legend and type same. Varieties 1, 2 and 3.  
*Rev.* +DE CIPRO. Type same.
3. *Obv.* VGONIS R€+. Cross pattée, crescents in first and fourth quarters, pellets in second and third.  
*Rev.* +DE CIPR·O. Type same.
4. *Obv.* VGONIS R€+. Cross pattée, crescent and pellet in first and fourth quarters, pellet in second and third quarters. Varieties 4 and 5. 25  
*Rev.* +DE CIPRO. Type same as 1.  
PLATE VI, 4.  
Probably the same as quoted by Schlumberger judging by illustration (Pl. VI, 5) the X of REX was not visible but supplied by him.)
5. *Obv.* Legend and type same. 1  
*Rev.* +DE CIPRO. Type same.

Hugh (1210–1218), (588 coins)

Class II

70

6. *Obv.* +REX hVGO:. Cross pattée, type 1.  
*Rev.* +DE·CI·PRO. Type same as 1.
7. *Obv.* +REX hVGO. Type same as 1.  
*Rev.* +CŸPRI. Type same as 1.
8. *Obv.* +REX·hVGO. Type same as 4.  
*Rev.* +CŸPRI. Type same as 4.  
(Schlum., pl. VI, 4.)



*Number  
of coins*

Class III

248

9. *Obv.* +hVGO· REX·. Cross pattée, crescents in first and fourth quarters, stars in second and third quarters.  
*Rev.* +CŸ·PRI·. Type same as 1.
10. *Obv.* Legend and type same.  
*Rev.* +CŸPRI·. Type same as above.
- PLATE VI, 5.
11. *Obv.* Legend and type same.  
*Rev.* +CY·PRI·. Type same.
12. *Obv.* +hVGO·REX·. Type same.  
*Rev.* Legend and type same.

Three other coins of Class III

- 1 type 9 struck on obverse only.
- 1 type 11.  
*Rev.* +CŸ.Ÿ·PRI·. The two Y's struck by same punch.
- 1 in which I is substituted for R.  
*Obv.* +hVGO·IEX·.  
*Rev.* +CŸPII·.

Class IV (280 coins) 252

13. *Obv.* +hVGO·REX·. Crescents in first and fourth quarters, pellets in second and third quarters.  
*Rev.* +CŸ·PRI·. Gateway with two battlements and door.

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*Number  
of coins*

14. *Obv.* Same as 13 but dots and annulets indiscriminately used for punctuation and in quarters of the cross.

Usual form:

*Obv.* †·hVGO·REX·. Crescents first and fourth quarters, annulets in second and third.

*Rev.* †·CY·PRI·. Two battlements.

- 14a. *Obv.* All pellets (no annulets).

*Rev.* Three battlements on gate.

15. *Obv.* †·hVGO·REX·. Type same as 14a.

*Rev.* †·CY·PRI·. Type same as 14a.

16. *Obv.* †·REX·hVGO. Type same.

*Rev.* Legend and type same as 15.

17. *Obv.* †·hVGO·REX·. Type same. 16

*Rev.* †·CY·PRI·. Gateway as in 13, with star in field above gate. PL. VI, 6.

18. *Obv.* Legend and type same. 1

*Rev.* †·CY·PRI·. Gateway with three battlements, flower in field below gate. PLATE VI, 7.

19. *Obv.* †·REX·hVGO. Type same as 1 above.

*Rev.* †·C(ΥPR)I·. Type same as 18 but coin clipped and worn.

The classes into which the coins of Hugh are divided are arranged in their probable chronological sequence.

## JERUSALEM

Baldwin III or IV (1144–1162 and  
1173–1185)

	<i>Number of coins</i>
<i>Obv.</i> BĀLṬVIN(V)S REX. Cross pattée.	1
<i>Rev.</i> †(Ṭ)Є IЄRVSĀLEH. "Tower of David."	
Billon denier. (Schlum., p. 87.)	

## Amaury II (1198–1205)

The 652 deniers of Amaury II included in this hoard are all of the type illustrated by de Saulcy in his *Numismatique des Croisades*, and by Schlumberger (under Amaury I) in the *Numismatique de l'Orient Latin*. Schlumberger examined about 200 specimens and found them all of one variety (No. 1 below) with insignificant variations. Here, too, the varieties are only minor ones but they are perhaps sufficiently marked to warrant the following classification:

- |   |     |
|---|-----|
| Class I   | 465 |
| 1. <i>Obv.</i> AMALRICVS REX°. Cross pattée with annulets in second and third quarters. |     |
| <i>Rev.</i> †DE IЄRVSALEM. A conventionalized representation of the Holy Sepulcher.     |     |
| 2. <i>Obv.</i> AMALRICVS REX. Type same.  |     |
| <i>Rev.</i> Legend and type same.   |     |

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*Number  
of coins*

3. *Obv.* AMALRICVS REX. Type same.  
*Rev.* Legend and type same.

Class II 86

4. *Obv.* AMALRICVS REX. Punctuation  
either pellet or annulet, cross pattée with  
pellets in second and third quarters.  
*Rev.* Legend and type same.  
5. *Obv.* AMALRICVS REX. Type same.  
*Rev.* Legend and type same. PLATE VII, 1.

Class III 47

6. *Obv.* AMALRICVS REX. Cross pattée  
with annulet in second and pellet in third  
quarter.  
*Rev.* Legend and type same. PLATE VII,  
2.

(These coins may belong to class I and the  
pellet be the result of a worn punch; they might  
well have been so considered except for the fact  
that the relative position of annulet and pellet is  
constant.)

Class IV 52

7. *Obv.* Legend same. Punctuation either  
pellet or annulet. Annulets in first and  
fourth quarters.  
*Rev.* Legend and type same.

*Number  
of coins*

8. *Obv.* Legend and type same. No punctuation.

*Rev.* Legend and type same.

9. *Obv.* Legend same as 2, annulets in first and fourth quarters.

*Rev.* Legend and type same. PL. VII, 3.

### Unclassified

10. *Obv.* Inscription illegible, cross pattée 1  
with annulet in third quarter only.

*Rev.* Legend and type same.

11. *Obv.* AMALRICVS REX. Simple cross 1  
pattée.

*Rev.* Legend and type same. PLATE VII,  
4.

Billon deniers.

Because of the poor striking, the extensive clipping and the wear, the majority of these coins can be divided only into general groups. All doubtful coins are assigned to Class I. In all classes A's and M's appear both with and without cross bars, but only in Classes I and IV do the A and M appear in monogram form (AM) (varieties 2 and 9). In all classes the workmanship of the reverse varies from extremely crude, to good, careful cutting. The sides of the dome of the Holy Sepulcher, though usually and in the best instances, concave, are also

*Number  
of coins*

represented by straight, and in one instance, by convex lines. The façade, which has three nicely drawn arches on the better coins, is indicated on the poorer ones as a grille; i.e., simple crossing of straight lines.

John of Brienne (206 coins)

Damietta (November 1219–May 1221)

Type I

- |                              |                                      |     |
|------------------------------|--------------------------------------|-----|
| 1. <i>Obv.</i> +IOhES: REX:. | Cross pattée, an-                    | 100 |
|                              | nulets in second and third quarters. |     |
| <i>Rev.</i> +DAMIATĀ.        | Head of the king                     |     |
|                              | crowned, hair curled.                |     |
|                              | (Schlum., Pl. III, 31.)              |     |
| 2. <i>Obv.</i> +IOhES: REX:. | Type same.                           | 34  |
| <i>Rev.</i> +DAMIĀTĀ.        | Type same.                           |     |
| 3. <i>Obv.</i> +IOhES: REX:. | Type same.                           | 6   |
| <i>Rev.</i> +DAMIĀTĀ.        | Type same.                           |     |
| 4. <i>Obv.</i> +IOhES REX.   | Type same.                           | 4   |
| <i>Rev.</i> +DAMIATĀ.        | Type same. PLATE                     |     |
|                              | VII, 5.                              |     |

At least six other varieties in which number of dots in punctuation after IOhES and REX varies from one to three in number. PLATE VII, 6.

Thirty-three coins were too worn to be classified.

Total for this type is 194 billon deniers.

*Number  
of coins*

## Type II

5. *Obv.* +IOHANNES REX. Head of king, 12  
crowned with two straight fillets hanging  
on each side.

*Rev.* +DAMIETΛ. Cross pattée, annulets  
in second and third quarters.

(Schlum., pl. XX, 4.) PLATE VII, 7.

There is no variation in the twelve examples  
of this coin but they come from eight different  
dies—two each from four dies, and one each  
from four dies.

Billon deniers.

## BEYROUT

John d'Ibelin (1198–1236) (21 coins)

1. *Obv.* +IOHANNES. Cross pattée, crescents 4  
in second and third quarters.

*Rev.* +DE BÉRITI. City gate coursed  
masonry and three battlements.

(Schlum. pl. V, 10.)

2. *Obv.* +IOHANNES. Type same as above. 3

*Rev.* +DE BÉRITI. Type same as above.

PLATE VIII, 1.

3. *Obv.* Inscription same, but crescents in first 6  
and fourth quarters.

*Rev.* Legend and type same as in 1.

4. *Obv.* +IOHS DE IBELINO. Cross pattée, 3  
crescents in second and third quarters.

## 54 THE TRIPOLIS HOARD

	<i>Number of coins</i>
<i>Rev.</i> +CIVITĀS BERITI. Large gate, two flanking towers.	
5. <i>Obv.</i> Legend and type same.	2
<i>Rev.</i> +CIVITĀS BERITI:. Type same.	
6. <i>Obv.</i> +IOhS DE BELINO. Type same.	1
<i>Rev.</i> +CIVITĀS BERETI:. Type same.	
PLATE VIII, 2.	
7. <i>Obv.</i> +IOhS DE IBELINO:. Cross pattée crescents in first and fourth quarters, an- nulets in second and third.	1
<i>Rev.</i> +:CIVITĀS BERITI:. Same general type.	
Unclassified. PLATE VIII, 3.	1
Billon Deniers.	

## ANTIOCH

Bohemond IV (1201–1232)

1. <i>Obv.</i> +BOAMVNDVS. Helmeted head r. with crescent and star in field r. and l.	1
<i>Rev.</i> +ANTIOCHIA. Cross pattée, cres- cent in second quarter. (Schlum. Pl. III, 4.) PLATE VIII, 4.	
2. <i>Obv.</i> Variety with dots in center of O's on obverse and reverse.	1
3. <i>Obv.</i> +BOAMVNDVS. Type same.	1
<i>Rev.</i> +ANTI·OCHIA. Type same.	
Billon deniers.	



## TRIPOLIS

Raymond III (1187–1200)

	<i>Number of coins</i>
<i>Obv.</i> +RΛIMVNDVS COMS. Cross pattée.	1
<i>Rev.</i> +CIVITΛS TRIPOLIS. Eight-pointed star with annulets between rays. (Schlum. Pl. IV, 16.) PLATE VIII, 5. Billon denier.	

This makes a total of 1734 coins minted by the Crusaders in the East.

There is one Arabic coin, silver, denier size probably belonging to Ayyub dynasty at May-yafarikin, El Awhad Nejmeddin Ayyub (596–607 A.H.) or 1199–1210.\* PLATE VIII, 6.

From the number of French coins in this hoard, together with the quantity of coins from Damietta which show practically no wear, we may conclude that the owner was a French Crusader traveling north immediately after the fall of Damietta in 1221 and stopping in Cyprus to cash his letter-of-credit for expenses on the way. In anticipation of his return to France and travels through other foreign countries, he had got rid of his copper, which would not be current in Europe, and saved the silver and better billon. This would account for the absence of all deniers of Guy de Lusignan, both as King of

\* Kindly identified for me by Mr. Wood of the American Numismatic Society.

Cyprus and Jerusalem, but does not account for the omission of coins of John de Brienne as King of Jerusalem, which were of silver. These coins are rare. It is, therefore, possible that they were not struck until after his return from Egypt.

It is impossible, at this date, to determine the reason for the burial of the hoard. Although found at Tripolis, only one coin of Tripolis was included among the 3537, so that it is incredible that this find represents the savings of a resident of that city. It seems more likely that the owner, overcome by sickness, or perhaps attacked by pirates off the coast of Tripolis buried his hoard with hopes of unearthing it at some future time, but was prevented, with the result that the hoard remained buried for seven hundred years.

## APPENDIX

Because of the nature of this hoard and because, so far as I know, no exact analysis has ever been attempted when dealing with the coins of the Crusaders, a certain number of coins were weighed and analyzed.

To make the series more complete I have added a denier of an earlier Baldwin (Baldwin II or III) not represented in the hoard.

+RC(X) BAL<sup>o</sup>OINVS, cross pattée

∴CBICRVSAIC, Tower of David

Weight 1.02 grammes (no analysis but copper content not obvious).



Four coins of Baldwin IV were weighed, two from the collection of the American Numismatic Society weighing .86 and .78 gramme, two from the author's collection weighing .82 gramme each, giving an average weight of .82 gramme. An assay\* showed 34.7% silver, giving .285 gramme fine silver per denier.

Supposing the denier of Baldwin II to be of approximately the same fineness we get .354 gramme fine silver to the denier which corresponds closely to the current continental denier of the first half of the XII century, or  $\frac{1}{4}$  of a sterling of 1.40 grammes. The deniers of Baldwin IV with their smaller content of fine silver follow the general trend of the European money which showed a gradual depreciation during the course of the century.

Two deniers of Amaury II assayed 33.3% and 31.37%, an average of  $32\frac{1}{3}\%$ .

Five deniers of Amaury II were weighed. The first two were bought by the author in Jerusalem; the others, from the American Numismatic Society's collection, also came from that city presumably.

\* Mixture of alloy was extremely crude and in all cases the two halves of the coin were assayed separately and an average taken.

## 58 THE TRIPOLIS HOARD

The weights are: .990, .920, .940, .800, and .875; average = .905 gr. Fine silver per denier = .2923 gr.

The discrepancy between this and the silver in the deniers of Baldwin (about  $2\frac{1}{2}\%$ ) is not too great to suppose them to be of like standard.

The weights of the deniers of Amaury in this hoard in no wise correspond to those given above. Fifty undoubtedly complete coins were weighed and averaged .55 gr., varying from .290 gr. to .721 gr., only the one coin weighing .7 gr. or over. (In many cases it is difficult to state definitely whether a coin was struck on an irregular planchet or has been clipped. These coins have not been considered.) One hundred clipped deniers showed an average weight of .4799 gr. (varying from .275–.645 gr.) which though less than the weight of the complete coins is by no means in proportion to the extent of the clipping. A number of badly clipped deniers weigh between .6 and .64 gr. The deniers of Amaury here illustrated weigh as follows: Plate VII, 1 weighs .56 gr.; 2, .45 gr.; 3, .54 gr.; 4, .565 gr.

There are two possible explanations for the difference in weight of the coins in this hoard and those from the collections. The first is that the heavier coins were issued by Amaury I and slavishly copied by Amaury II at a reduced weight. The alternative is that Amaury II minted coins on two standards, one, the heavier, for Jerusalem, and the lighter for Cyprus. The latter agree in silver content fairly well with the

deniers in the name of Guy which we earlier attributed to Amaury.

Deniers in the name of Guy vary from .533–1.120 with an average weight of .771 gr. (though the norm seems to be ca. .8 gr.) 20.3% silver—fine silver, in one denier = .157 gr.

Unclipped denier of Amaury ( $.55 \times 32.3\%$ ) = .178 gr.

Clipped and unclipped averaged together give silver in denier ( $.502 \times 32.3\%$ ) = .162 gr.

The latter seems to be the intended weight for not only does it more nearly agree with the value of the earlier coins for Cyprus but also with the later.

Deniers of Hugh I vary from .455–1.035, average weight = .758 gr.

21.2% silver, silver per denier = .163 gr.

John of Brienne at Damietta vary from .589–.974, avg. wgt. = .739 gr.

22% silver, silver per denier = .163 gr.

These last figures are convincingly consistent. In relation to these it is interesting to bear in mind the use of the letter-of-credit. The principal issuers of these were Italian bankers in Genoa, Florence and Sienna, to their correspondents in Cyprus, Egypt and Syria (see *Monnaies à légendes arabes frappées en Syrie par les Croisés*. Henri Lavoix, p. 1). Many French Crusaders set sail for the Holy Land from Genoa so that it was more convenient for them to do banking in that city than in the interior. It was, therefore, important for the countries for which they

were bound to have a currency readily computed on a Genoese standard.

In an act of 1201 under Alberto Malaspina the Genoese pound = 82.355 gr., the Genoese sol = 4.11775 gr.

The sol had 3.97363 gr. fine silver and was worth 4.7 gr. bullion (*La moneta Genoese*, Pier Francesco Casaretto, p. 191). At twenty-four Cypriote or Damietta deniers to the sol and allowing for a slightly smaller per cent of silver to the smaller coin (.163 gr. instead of 1.65 gr.) we have here a coin which can be calculated directly in Genoese pounds, thus avoiding a loss to the government which a more complicated system of exchange would entail.

Enough data on Crusaders' coins has not been available to make any conclusive statements about the varying weights of these coins, nor have I made any thorough study of existing material on Medieval standards. The above argument is offered only as a reasonable and possible explanation of the weight of Cypriote and Damietta deniers.

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# THE TRIPOLIS H'D

PL. I



1.



2.



3.



4.



5.



6.



7.



8.





# THE TRIPOLIS H'D

PL. II



1.



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3.



4.



5.



6.



7.





THE TRIPOLIS H'D

PL. II



1.



2.



3.



4.



5.



6.



7.





# THE TRIPOLIS H'D

PL. I



1.



2.



3.



4.



5.



6.







# THE TRIPOLIS H'D

PL. II



1.



2.



3.



4.



5.



6.



7.





# THE TRIPOLIS H'D

PL. III



1.



2.



3.



4.



5.



6.



7.





# THE TRIPOLIS H'D

PL. IV



1.



2.



3.



4.



5.



6.



7.





# THE TRIPOLIS H'D

PL. V



1.



2.



3.



4.



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6.



7.







# THE TRIPOLIS H'D

PL. VI



1.



2.



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4.



5.



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7.





# THE TRIPOLIS H'D

PL. VII



1.



2.



3.



4.



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6.



7.





# THE TRIPOLIS H'D

# PL. VIII



1.



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3.



4.



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6.





# THE TRIPOLIS H'D

PL. VI



1.



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6.



7.







# THE TRIPOLIS H'D

PL. VII



1.



2.



3.



4.



5.



6.



7.





# THE TRIPOLIS H'D

PL. VIII



1.



2.



3.



4.



5.



6.





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NUMISMATIC NOTES  
AND MONOGRAPHS

No. 60



TWO HOARDS FROM MINTURNO

BY  
EDWARD T. NEWELL

THE AMERICAN NUMISMATIC SOCIETY  
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# TWO HOARDS FROM MINTURNO

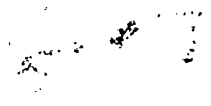
BY

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# TWO HOARDS FROM MINTURNO

BY EDWARD T. NEWELL

## I

### A REPUBLICAN HOARD

In the course of the interesting excavations carried out at Minturno, the ancient Minturnae in Latium, by the Pennsylvania University Museum under the direction of Dr. Jotham Johnson, a small hoard<sup>1</sup> of Roman Republican bronze coins was unearthed.

Quoting from the accompanying letter sent by Dr. Johnson, the building under whose floor the coins were found "was an Italiote Stoa. . . . Like contemporary temples, it was raised up on a *podium* about a meter above the ground level outside the building. The foundations for the walls and columns formed a sort of box into which field dirt was poured; and apparently in the Republican period the Stoa had no other than a dirt floor. . . . Either when the Stoa was built or at some later date . . . the need for some system of water disposal arose in the west wing of the Stoa. An underground channel was accordingly built: A trench about one

<sup>1</sup> The writer desires here to express his thanks and appreciation both to Dr. Jayne, Director of the Pennsylvania University Museum, and to Dr. Johnson, field-director of the expedition, for kindly suggesting and permitting the publication of this important little hoard.

meter deep (i. e., about down to the original ground level) was dug in the fill of the *podium*; the pan of the trench, about 0.50 m. wide, was paved with ordinary terracotta roof tiles; a triangular drain was formed by roofing this floor of tiles with wooden planks laid to meet at a point (the wood was gone but the shape could be traced in the cutting); and the whole trench was then filled in. An inlet into this drain must have been left in the floor, but it could not be traced. Presumably it had a cover of wood or stone or terracotta and perhaps even a protective tubing of terracotta. When we dug the foundations here we found only two of these roof tiles in place. The hoard lay in a pile on one of these tiles. My first thought was that these were odd pieces which had fallen one by one down the inlet and been abandoned, but the number of the pieces and the fact that they were clustered later led me to think that they were a purseful laid there for temporary safekeeping by a shop-concessionaire in the Stoa. It seemed difficult but not impossible to reach a long arm down the hole and bring out the purse again."

So much for the surroundings in which the hoard was found. The coins themselves comprised examples of the Roman struck *as*, *semis*, *triens*, *quadrans*, *sextans*, and *uncia*, together with a so-called "*half-litra*," a *sextans* and several *unciae* of the Romano-Campanian series, numerous *sextantes* (sometimes called *semunciae*, as they are without denominational marks) of uncertain mintage but

recently assigned by E. A. Sydenham<sup>2</sup> to Latium-Campania, a much reduced *semis* assigned to Canusium and, finally, several *sextantes* and an *uncia* formerly given to Capua but now to Catania in

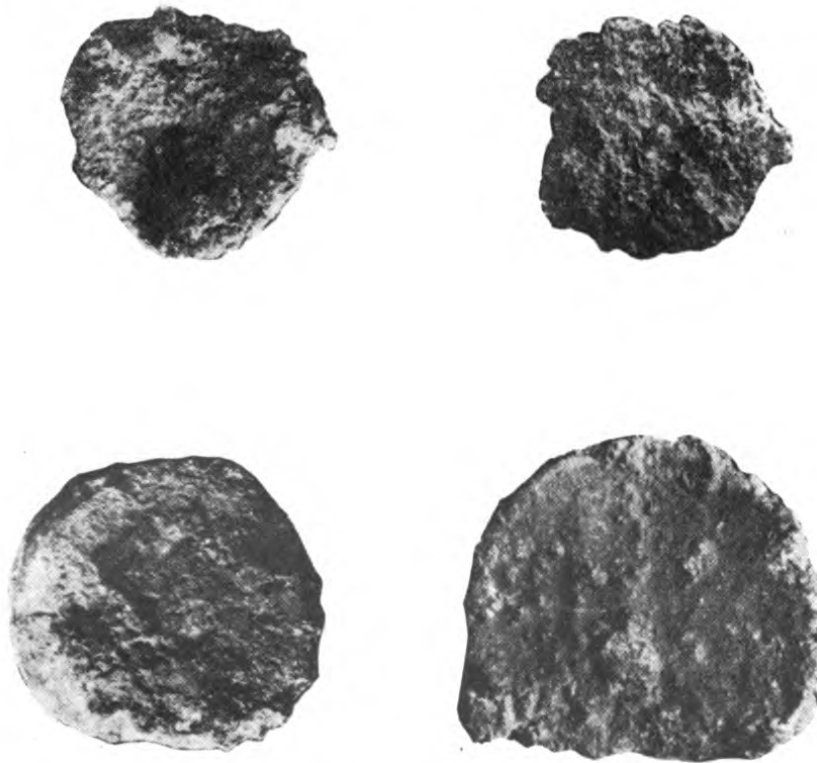


FIGURE 1.

Corroded coins, showing condition when found.

Sicily—a total of sixty-one coins. The coins were very badly corroded. The peculiar damage exhibited by certain of the pieces may perhaps also be attributed to the effects of some great heat, as these coins have the appearance of being partially

<sup>2</sup> Edward A. Sydenham, *Aes Grave*. p. 93 note 2, and p. 106. note 2.

melted. In the cases of some twenty pieces the original types could still be made out and these, but for a slight brushing to remove the accumulated dirt, have been kept as found. The remainder, however, were absolutely illegible (cf. fig. 1) because of severe corrosion and accumulated deposits of lime etc., and it was therefore imperative to clean them. In fact, so badly had some of the coins been attacked by the "bronze disease" that in certain instances nearly half of the coin had completely corroded away while others were in so lamentable a state that small fragments actually broke off in the electrolytic bath and had later to be glued on again after the cleaning was completed. The coins to be cleaned were subjected to Dr. Fink's process,<sup>3</sup> but even this approved method was in many cases inadequate and only sufficed to make recognizable (sometimes barely so) the original types.

In the following catalogue the coins are numbered from 1 to 61, the excavator's numbers given the coins when found (i. e. nos. 3106-66) being disregarded. The references are to *Coins of the Roman Republic in the British Museum* by H. A. Grueber. Because of their generally poor state of preservation only a few of the more typical specimens have been selected for reproduction on the accompanying plates; while four others, showing the condition in which they were found, are illustrated in fig. 1. References to similar but far better preserved specimens, illustrated in the *British Museum Catalogue*,

<sup>3</sup> Colin G. Fink, *The Restoration of Ancient Bronzes and Other Alloys*, New York, 1925.

accompany the descriptions for the convenience of the student. The weights recorded are those of the coins after brushing or cleaning. Weights *before* cleaning would have been utterly misleading as most of the specimens were too much covered with heavy deposits of lime, dirt and even decomposed portions of contiguous coins.

ROME—"SEMILIBRAL" STANDARD.

No. Denomina-  
tion

1-4 SEXTANS Head of Mercury r., wearing winged petasus; above, ••.

*Rev.* ROMA above prow r.; below, •• B. M. C., Pl. XI, 3.

1) gr. 27.80 (cleaned); 2) gr. 27.64; 3) gr. 27.20 (cleaned); 4) gr. 19.05 (cleaned).

5-9 UNCIA Head of Roma l., wearing crested Attic helmet; behind, •.

*Rev.* ROMA above prow r.; below, • B. M. C., Pl. XI, 5.

5) gr. 14.25 (cleaned); 6) gr. 14.14; 7) gr. 13.32 (cleaned); 8) gr. 13.05 (cleaned); 9) gr. 12.32 (cleaned).

ROME—FURTHER REDUCTIONS.

10 SEXTANS Same types as nos. 1-4 but the head  
to of Mercury is smaller. B. M. C., Pl.  
12 XI, 4.

10) gr. 13.85 (cleaned); 11) gr. 11.55 (cleaned). Apparently restruck on a "semilibral" uncia; 12) gr. 9.36 (cleaned).

- 13    **UNCIA**    Same types as nos. 5-9 but head of  
to                Roma is smaller. B. M. C., Pl. XI, 6.  
14                13) gr. 10.94 (cleaned); 14) gr. 10.68  
                    (cleaned).
- 15    **UNCIA**    Same types as nos. 5-9 but the head  
to                of Roma is much smaller and faces to  
16                r. B. M. C., Pl. XI, 7.  
                    15) gr. 7.93; 16) gr. 5.97 (cleaned).

## ROME—"SEXTANTAL" STANDARD.

- 17    **AS**            Head of Janus laureate; above, I.  
to                *Rev.* ROMA below prow r.; above,  
20                I. B. M. C., Pl. XII, 9.  
                    17) gr. 41.23; 18) gr. 36.92; 19) gr.  
                    35.82 (cleaned); 20) gr. 23.56 (cleaned).
- 21    **SEMIS**        Head of Jupiter r., laureate; behind, S.  
to                *Rev.* ROMA below prow r.; above,  
23                S. B. M. C., Pl. XII, 10.  
                    21) gr. 20.54 (cleaned); 22) gr. 16.88;  
                    23) gr. 15.58.
- 24    **TRIENS**        Head of Minerva r., wearing crested  
                    Corinthian helmet; above, . . . .  
                    *Rev.* ROMA above prow r.; below,  
                    . . . . B. M. C., Pl. XII, 11.  
                    24) gr. 12.98
- 25    **SEXTANS**      Head of Mercury r., wearing winged  
                    petasus; above, . .  
                    *Rev.* ROMA above prow r.; below,  
                    . . B. M. C., Pl. XII, 13.  
                    25) gr. 6.20 (cleaned).

## ROME—"UNCIAL" STANDARD.

- 26    **SEMIS**        Same types as nos. 21-23, but smaller.  
                    B. M. C., p. 48, no. 380.  
                    26) gr. 9.10.



- 27 TRIENS Same types as no. 24. B. M. C., Pl.  
to XV, 3.  
32 27) gr. 7.78 (cleaned); 28) gr. 6.42  
(cleaned); 29) gr. 6.28; 30) gr. 6.10  
(cleaned; apparently restruck over  
an earlier coin, perhaps a "sextantal"  
sextans); 31) gr. 5.73; 32) gr. 3.92.
- 33 QUADRANS Head of Hercules r., wearing lion's  
to skin; behind, ⋮  
34 *Rev.* ROMA above prow r.; below,  
. . . B. M. C., Pl. XV, 4.  
33) gr. 3.34; 34) gr. 3.05 (cleaned).
- 35 SEXTANS Same types as no. 25, but smaller.  
to 35) gr. 2.15 (cleaned); 36) gr. 2.06; 37)  
40 gr. 1.62 (cleaned; fragment missing);  
38) gr. 1.94 (cleaned; fragment miss-  
ing); 39) gr. 1.31 (cleaned; fragment  
missing); 40) gr. 0.97 (cleaned; broken  
and fragment missing).

LATIUM-CAMPANIA—"SEXTANTAL" STANDARD.

- 41 SEXTANS Head of Mercury wearing winged  
to petasus. Flat relief. No marks of  
45 value.  
*Rev.* ROMA above prow r. No  
marks of value.  
41) gr. 6.45 (cleaned); 42) gr. 6.26  
(cleaned); 43) gr. 6.18 (cleaned); 44)  
gr. 5.78 (cleaned); 45) gr. 5.66  
(cleaned).
- 46 SEXTANS Similar, but with higher relief and  
to the style more "Greek."  
52 46) gr. 5.61 (cleaned); 47) gr. 5.29  
(cleaned); 48) gr. 5.27 (cleaned); 49)  
gr. 4.81 (cleaned); 50) gr. 4.50

8           HOARDS FROM MINTURNO

(cleaned); 51) gr. 4.39 (cleaned); 52)  
gr. 3.06 (cleaned).

ROMANO-CAMPANIA—"GREEK" STANDARD.

- 53   HEMI-       Laureate head of Apollo to r.  
     LITRA (?)    *Rev.* ROMA below free horse pranc-  
                  ing l. B. M. C., Pl. LXXIV, 20.  
                  53) gr. 3.17 (cleaned).

ROMANO-CAMPANIA—"SEMILIBRAL" STANDARD.

- 54   SEXTANS    Wolf r. suckling Romulus and Remus.  
                  In the exergue, . .  
                  *Rev.* ROMA before eagle standing  
                  r. Behind, : B. M. C. Pl. LXXV,  
                  10.  
                  54) gr. 23.87 (cleaned).
- 55   SEMUNCIA   Female bust r., turretted and draped.  
to               *Rev.* ROMA below horseman gal-  
57               loping r. B. M. C., Pl. LXXV, 12.  
                  55) gr. 6.54 (cleaned); 56) gr. 6.32;  
                  57) gr. 4.76 (cleaned).

CANUSIUM (?).

- 58   SEMIS       Head of Jupiter r., laureate.  
                  *Rev.* ROMA beneath prow r. To  
                  r. of prow, C. cf. B. M. C., II, p. 189.  
                  58) gr. 6.78 (cleaned).


CATANIA (SICILY).

a) "SEXTANTAL" STANDARD.

- 59   UNCIA       Head of Roma r., wearing crested  
                  helmet; behind, .

*Rev.* Ear of wheat and ROMA  
above prow r. Beneath, . B. M. C.,  
Pl. LXXX, 14.  
59) gr. 5.54.

b) "UNCIAL" STANDARD.

60 SEXTANS Head of Mercury r., wearing winged  
to petasus. Above, . .  
61 *Rev.* Ear of wheat above prow r.;  
beneath, ROMA; in front of prow,  .  
B. M. C., Pl. LXXXVII, 6, 7.  
60) gr. 6.26; 61) gr. 4.46 (cleaned).

Taking up first the study of the group presumably struck at Rome itself, we have—for convenience—divided it into four sub-divisions arranged according to the descending weights of their respective coins. Sub-division 'a' is composed only of *sextantes* and *unciae* based on the "semi-libral" standard. These coins, at the time of their issue, were associated with the (cast) *as*, *semis*, *triens* and *quadrans* of reduced weight. Haeberlin<sup>4</sup> dates the commencement of the "semi-libral" series in 286 B. C., while Sydenham<sup>5</sup> assigns it to 271–268 B. C. Samwer-Bahrfeldt<sup>6</sup> held that the reduction of the *as* from libral to sextantal weight was gradual and not the result of any special legislative act. Grueber,<sup>7</sup> following Momm-  
sen,<sup>8</sup> does not recognize the "semi-libral" reduction but calls coins such as our nos. 1 to 9 "triental."

<sup>4</sup> *Aes Grave*, Vol. I, p. 103.

<sup>5</sup> *Aes Grave*, London, 1926. Pp. 25, 33, 36.

<sup>6</sup> *Gesch. des alt. röm. Münzw.*, pp. 45 f.

<sup>7</sup> *Coins of the Roman Republic in the British Museum*. Pp. xxv, 16, note 2.

<sup>8</sup> *Hist. mon. rom.*, vol. II, p. 10 and vol. III, p. 468.

Recently, in a most important article,<sup>9</sup> Mr. Mattingly contends that the libral *as* first commenced to be reduced during, and because of, the exigencies of the First Punic War.

Sub-division 'b' (nos. 10-16) comprises *sextantes* and *unciae* still further reduced; while sub-division 'c' (nos. 17-25) follows with specimens of the *as*, *semis*, *triens* and *sextans*, all of sextantal weight. These have always been assigned to the First Punic War, following Pliny's definite statement<sup>10</sup> that the sextantal *as* was struck at that very time. Against this generally accepted "fact," Mr. Mattingly now advances<sup>11</sup> numerous serious arguments and rather damaging evidence, preferring, as a consequence, to follow what has hitherto been regarded as only a blunder on the part of Festus who clearly assigns<sup>12</sup> the sextantal *as* to the Second Punic War. Hence, nos. 17-25 would first have appeared about the year 210 B. C., or a little later.

Sub-division 'd' (nos. 26-40), comprising examples of the *semis*, *triens*, *quadrans* and *sextans* of the uncial standard, would represent the continued fall in weight and may be dated after *circa* 200 B. C. In other words, nos. 1-40 (practically two thirds of our hoard) represent the bronze coinage, of ever lessening standard, struck at Rome itself from *circa* 250 B. C. to some time after 200 B. C.

<sup>9</sup> The First Age of Roman Coinage. *Journal of Roman Studies*. Vol. XIX, 1929. Pp. 19-37.

<sup>10</sup> *Hist. Nat.* XXXIII, 44.

<sup>11</sup> *Loc. cit.*, p. 31ff.

<sup>12</sup> *De verb. sig.*, s. v. *grave* and *sextantari*.

The second group contains eleven coins (nos. 41–52) bearing the distinguishing type of the *sextans* (i. e. head of Mercury on the obverse) but without the usual marks of value. Grueber<sup>13</sup> and Haeberlin,<sup>14</sup> following D'Ailly,<sup>15</sup> regard these coins as *semunciae*, the one associating them with the triental and sextantal series, the other with the semi-libral. Sydenham, however, because of their obverse type, prefers<sup>16</sup> to regard them as actually *sextantes* belonging to the sextantal reduction, and so dates them *circa* 242–229 B. C. In view of the comparative rigidity of the Roman coin types, it seems best to follow Sydenham with regard to their probable denomination. He is also probably correct in assigning them to some unknown mint in the Latium-Campanian district, rather than to Rome itself, as his predecessors have done. Certainly the high relief of nos. 46–52, and the peculiarities of style displayed by the entire group, disassociate them definitely from the coins hitherto given by general consent to the mint at Rome. The fact that they now turn up in considerable numbers in a hoard found at the ancient Minturnae, favors their assignment to a more southerly mint than Rome, but offers no further evidence to assist us in determining their actual place of issue. The latter might even have been Minturnae itself—but this one hoard is hardly sufficient evidence upon which to base such a sup-

<sup>13</sup> *Loc. cit.*, pp. 24–6 and 33.

<sup>14</sup> *Loc. cit.*, p. 112 ff.

<sup>15</sup> *Mon. rom.*, Vol. I, pp. 111–115.

<sup>16</sup> *Loc. cit.* pp. 53, 93, note 2

position. And in that case, our hoard would surely have contained at least a few of the associated *unciae* without marks of value.<sup>17</sup> If Mr. Mattingly's new datings be accepted, then nos. 41-52 could not have been struck before the Second Punic War, but should be assigned to the last decade of the third century B. C.

The third group comprises the strictly Campanian issues bearing local types. No. 53 is a half-litra and dated by A. Sambon<sup>18</sup> after 280 B. C. It is still of "Greek" weight, having as yet little to do with the Roman system of bronze coinage, and was evidently intended for local circulation only. Nos. 54-57 belong to the succeeding issue, characterized by types revealing Roman as well as local influence, and by weights based on the semi-libral standard. They have been assigned by Haeberlin to 268 B. C., by Grueber to a date after 269 B. C. Sydenham gives them to 271-268 B. C., while if we accept Mr. Mattingly's dating they will have to be brought down at least to the First Punic War and date about 250 B. C.

The final group is composed of specimens assignable to various mints and dates. The *semis*, no. 58, is supposed by Grueber<sup>19</sup> to have been struck at Canusium because of the large C to be seen on the reverse, in front of the prow. He there dates these

<sup>17</sup> Cf. Grueber, *loc. cit.* p. 26, where they are regarded as *quartun ciae*.

<sup>18</sup> *Les Monnaies antiques de l'Italie*. p. 441.

<sup>19</sup> *Loc. cit.* Vol. II, p. 187, note 2. D'Ailly assigned (*Mon. rom.* p. 625) the coin to Capua.

bronzes about 217 B. C., or later. The very light weight of our coin, grammes 6.78, approaches that of the semuncial class, but must be fortuitous as the introduction of that standard post-dates the burial of our hoard by over a hundred years. Possibly some Sicilian or Carthaginian coin was employed as a flan. Other denominations of this issue (with C) are known, restruck on Sardinian coins which latter appear to be issues for the revolt against Rome in 216 B. C.<sup>20</sup>

No. 59 has been assigned by Grueber,<sup>21</sup> following d'Ailly,<sup>22</sup> to Campania, both on grounds of style and because of the symbol, an ear of wheat, to be seen above the prow on the reverse. In a most important article,<sup>23</sup> Dr. Bonazzi calls attention to the fact that not only are many of these coins restruck on earlier Sicilian issues but also that numerous specimens have occurred in Sicilian hoards. He therefore reaches the natural conclusion that the restriking must have taken place in that island. Grueber dates these issues 240–217 B. C., Dr. Bonazzi 241–218–201 B. C.,<sup>24</sup> while, if we follow Mattingly's theory, they could not have appeared before *circa* 210 B. C. Likewise, coins similar to nos. 60–61 were formerly assigned to Capua,<sup>25</sup> but Dr. Bonazzi

<sup>20</sup> Cf. Mattingly *loc. cit.* p. 28 and note 2, where reference is also made to an article by V. Bornemann in *Blätter für Münzfreunde*, 1900, pp. 117 ff.

<sup>21</sup> *Loc. cit.* Vol. II, p. 163, note 3.

<sup>22</sup> *Loc. cit.* pp. 396 f.

<sup>23</sup> Le prime monete romane di bronzo coniate in Sicilia. *Rivista Italiana di Numismatica*. XXXV, 1922. pp. 13 f.

<sup>24</sup> *Loc. cit.*, pp. 24–5.

<sup>25</sup> D'Ailly Vol. II, p. 403 ff. Grueber, *loc. cit.*, Vol. II, p. 208 ff.

has shown that in this case too, many of the known examples are restruck over older Sicilian types (mostly of Hiero II) and that the coins themselves are usually found in Sicily. Because of this and because of the monogram  $\overline{\text{KA}}$  he supposes their mint to have been located at Catania. On the other hand, Dr. Taramelli describes four similar pieces<sup>26</sup> from a large hoard of some eight hundred Carthaginian (Sardinian) coins recently found at Perdasdefogu on the island of Sardinia. He claims to be able to recognize remains of a well known Sardinian coin type beneath the later Roman restrike, and points out the fact that the ear of wheat is a frequent type or symbol on Carthaginian coins struck in Sardinia. Hence he believes the restriking was done in Sardinia, perhaps at Cagliari, the ancient Carales.

The specimens in the Minturno hoard are also clearly overstrikes, but too little remains of the original type to determine whether the re-used flans are of Sicilian or Sardinian origin. Their presence in our hoard is interesting, although it does not permit of a final decision being made as to the mint at which they had been restruck. The present find-spot might even argue for the older viewpoint that Capua was their origin. On the other hand, the situation of Minturnae on the Via Appia, coupled with its importance at this time as a seaport, would favor the supposition of constant trade connections—and probably close ones—with both Sardinia and Sicily. Thus the presence of such coins, whether of

<sup>26</sup> *Notizie degli Scavi*. 1931, Ser. VI, Vol. VII, p. 88 ff.



Sardinian or of Sicilian origin, might be expected in a Republican hoard buried at Minturnae.

With regard to the probable date at which our coins were hidden, two points should be noted. In elucidating these we propose, in general, to adopt Mr. Mattingly's theories as outlined in his article in the *Journal of Roman Studies* for 1929. They not only present new light on the subject but appear also to be the best supported by both numismatic and literary evidence. According to them the coins contained in the hoard commence to appear, with only one earlier exception (no. 53), during the First Punic War (nos. 1-9, 54-7); continue through the succeeding years (nos. 10-16), become very numerous during the Second Punic War (nos. 17-25, 41-52, 59), and end with many specimens (nos. 26-40, 58, 60-61) which must date from that time to a little after 200 B. C.

The second point to be noted is the interesting fact that the hoard contains not even a single specimen of the very common series of urban bronze bearing either the symbols, the monograms or the abbreviated names of monetary magistrates.<sup>27</sup> These latter issues, according to their recorded weights, ought to be distributed between the sextantal and uncial series,<sup>28</sup> and they have therefore been spread by previous writers over a period running from *circa* 268 to 150 B. C. In numerous published

<sup>27</sup> Similarly the hoard contains none of the local issues bearing magistrates' letters or symbols, though it does contain a few specimens bearing mint marks (nos. 58-61).

<sup>28</sup> Cf. the very full lists of weights given by Lorenzina Cesano, *Rivista Italiana di Numismatica*, XXIV, 1911, p. 275 ff.

hoards<sup>29</sup> the signed and the anonymous issues have been indiscriminately mingled. In the Minturno hoard only the anonymous issues are present, clearly suggesting first, that the hoard was buried earlier than any of those listed in footnote 29; secondly, that the anonymous issues, for the most part, must have appeared first: and finally, that our hoard was buried either before the signed pieces had actually been issued or, at least, before they had had time to circulate at all extensively in southern Latium. In any case, the composition of our hoard seriously calls into question the correctness of the dates assigned to the signed bronzes by most writers before the appearance of Mr. Mattingly's study. The latter now places the introduction of the sextantal series at 210 B. C., "or possibly a little earlier,"<sup>30</sup> and suggests further<sup>31</sup> that "there was a steady decline in weight towards . . . an uncial standard for . . . (the) *as* . . . but this was dictated by stress of necessity—not by any law." Accepting this outline as substantially close to the actual facts, the signed urban bronze could hardly have commenced to appear before about 200 B. C. On the other hand, as our hoard did contain a few specimens of uncial weight it could not have been buried very much, if any, before 200 B. C.; and

<sup>29</sup> Cf. those of Ostia and Avola (*Riv. It. di Num.*, XXIV, 1911, p. 275 ff.); Rocchetta a Volturno (*Ibid.*, XXVIII, 1915, p. 275 ff.); San Giorgio a Nogaro (*Notizie degli Scavi*, 1917, p. 235 ff.); Giulianova (*Ibid.*, 1900, p. 7); Veroli (*Ibid.*, 1931, p. 542); Città San Angelo (*Ibid.*, 1931, p. 615 ff.).

<sup>30</sup> *Loc. cit.*, p. 32.

<sup>31</sup> *Loc. cit.*, p. 33.

similarly, as it contained no signed pieces of the urban series, and only a few of the local, it could also not have been deposited very many years *after* that date. Hence we would appear to be justified in assuming that the Minturno hoard must have been buried somewhere within the decade which runs from 200 to 190 B. C. Closer than this our present knowledge of the Roman series, as based on purely numismatic criteria, will hardly allow us to get.

The preceding paragraphs had already been written when the author received a most interesting communication from Dr. Johnson, followed—a few weeks later—by a second which more fully entered into details. The first letter called the writer's attention to two passages from Livy which intimately concern Minturnae at the end of the third and the beginning of the second centuries B. C. They are, (a) Livy XXVII 37: . . . Minturnis aedem Iovis et lucum Maricae . . . de caelo tacta . . . (for the year 207 B. C.) and (b) Livy XXXVI 37: . . . Minturnis aedem Iovis et tabernas circa forum de caelo tactas esse. (For the year 191 B. C.).

In answer to the reply that the hoard presents unmistakable internal evidence for a burial sometime shortly after 200 B. C., Dr. Johnson, on August 14th, writes as follows: “. . . in 207 B. C. the Temple of Jupiter was struck by lightning, and in 191 the Temple of Jupiter and the ‘tabernae’ around the forum were struck. We have identified the Temple of Jupiter with the Capitolium, which

stands in the forum of the Roman colony of that period. The 'tabernae' we at first identified with an imposing stoa which encloses the forum on three sides; and we have always thought that the stoa dated back to the Roman colonisation of 295 B. C. However, examining the definition of 'tabernae' we realized that the stoa with only great difficulty could be made to fit. We therefore conducted a little very cautious subsoil cleaning and made out a few scattered traces of a row of small shops which preceded the stoa. Everything now hangs together much better: these small shops were the 'tabernae'; they were certainly burned, and the date given by Livy, 191, is most satisfactory. Their place was then taken by the great stoa which is now our most conspicuous Republican monument. The two roof-tiles, re-used as drain-tiles, correspond to the level, not of the stoa which is nearly a meter higher, but of the floor of these small shops or 'tabernae.' It is difficult now to tell whether the tiles, on which the coins were found, coincided with the exact level of the floor of the shops or were a few centimeters below—my notes are not adequate at this point; but there can be no doubt that the tiles belong to the same complex as the 'tabernae.'" Livy does not state, in so many words, that the shops—to say nothing of the temple—were actually burned, but only that they were struck by lightning. As a result of Dr. Johnson's further investigations on the spot it seems necessary to assume that a disastrous fire did consume at least the shops, and it may reasonably be

supposed that this fire was the direct consequence of the meteorological event recorded by Livy. Such a conflagration, furthermore, would partially account for the condition in which the coins themselves were found.

The former owner of the hoard was probably one of the little shopkeepers doing business around the forum, and the hoard itself represents his savings or perchance, the contents of his "cash box" at the time the disaster overtook his shop. Why he never returned or took the trouble to retrieve his savings after the fire was over, we do not know. Possibly he perished in the conflagration. To account for the curious fact that the coins were not recovered when the debris was removed, preparatory to constructing the stoa which replaced the row of more modest little *tabernae*, it seems necessary to suppose that they had actually been hidden *beneath* the floor of the shop.

The Minturno Republican hoard is particularly welcome from several points of view. It represents the first instance in which a clear and definite date *ante quem* can be assigned to a hoard of Republican bronze coins.<sup>32</sup> It is considerably later than the Cervetri hoard, but definitely earlier than the Ostia, Avola, Parma, San Giorgio a Nogaro, Giulianova, Rocchetta a Volturno, Veroli and Citta San Angelo hoards, and so—for Italy—fills an important gap. It reveals just what constituted the 'small change'

<sup>32</sup> The Perdasdefogu hoard was buried after the Sardinian revolt of 216 B. C.—but how much after we do not know. In any case, that find contained but few Roman Republican coins.

circulating in southern Latium at the commencement of the second century B. C. It further shows that, here at least, different categories of the same denomination were still circulating side by side, though differing markedly in weight. Evidently the coins passed at their face value and little attention was paid to their widely varying weights. In other words, they were now really a token coinage. Apparently the clumsy cast pieces of the libral and semilibral coinages had long since vanished into the melting pot, while there was a growing tendency also to eliminate from circulation the remaining older and more cumbersome specimens which preceded the sextantal reduction. A somewhat similar process took place in our own country, in the fifties of the last century, when the newly introduced small-size cents circulated alongside the older and much larger cents, and gradually replaced them. In ancient times the process seems to have taken somewhat longer to accomplish. Finally, since the hoard can be rather closely dated, it comes as an additional bit of evidence to support the general trend of Mr. Mattingly's arguments for a somewhat later dating of the early Roman Republican series than has hitherto been accepted by scholars.

#### SUPPLEMENTARY NOTE

The present study was already in final page proof when Messrs. Mattingly and Robinson's, *The Date of the Roman Denarius and Other Landmarks in Early Roman Coinage*, Proceedings of the British

Academy, Vol. XVIII, reached the author—too late to make any changes, if such might be desired. In this new study of the Roman Republican coinages the authors argue for the year 187 B. C. as the true date for the introduction of the denarius and the accompanying sextantal bronze. If this date be accepted, then the Minturno hoard of Republican bronze coins can have had nothing to do with the “tabernae” mentioned by Livy as having been struck by lightning in 191 B. C. and, presumably, burned. On the other hand, the condition of the coins themselves certainly suggests that they must once have been subjected to some great heat, and the excavator states that they were actually found on, or just below, the floor level of these “tabernae.” They were therefore a full meter below the floor level of the succeeding stoa, which seems unnecessarily deep for a storekeeper in that later building to have buried his hoard of no great intrinsic value. In any case, as stated before, the hoard certainly supports the drastic change in the accepted dating of the denarius and the sextantal bronze as first suggested by Mr. Mattingly in 1929. Whether or not it confirms his latest dating, i. e. 187 B. C., depends upon our interpretation of the circumstances in which the hoard was found and the presumable date at which the stoa itself was constructed.

## II

## A LATE IMPERIAL HOARD

During the course of the campaign (1932) in which the Republican coins described above were found, there was also unearthed another hoard, but one some six hundred and fifty years later in date. About 1.80 meters above the level of a side street in the city, among the fallen bricks of a building-wall, the excavators discovered an ancient ox bone (Pl. I) containing one hundred and sixty-three copper coins and their halves, together with numerous fragments of broken and damaged specimens.

Although all of the coins were corroded and encrusted with a greyish deposit of soil, a careful brushing sufficed in most cases to remove enough of the accumulated dirt to render the types at least recognizable. In the case of some dozen specimens, where the corrosion was too hard or thick to remove by brushing alone, it was deemed advisable to clean them further by the electrolytic method. In any case, these coins are most unsatisfactory material to work with. The older pieces were already for the most part in an extremely worn condition when put away by their ancient owner—and subsequent corrosion has not made it any easier to recognize their almost vanished types or to decipher their legends. In addition, many of these coins had in ancient times been roughly broken in two, in order that they might circulate as halves. The later coins,



while not so worn, were crudely cut and badly struck on irregular and insufficiently large flans, with the result that nearly all their legends, as well as large portions of their types, are "off flan."

<i>No.</i>	<i>Obverse</i>	<i>Reverse</i>
Constans, 333-350.		
I	Traces of D N FL CONSTANS AVG. Draped bust to r.	VICT . . . . . Two victories <i>vis-à-vis</i> , holding wreaths and palm branches. Very worn. Mm. 15. Voet- ter <sup>2</sup> p. 244, no. 17. Mint probably Rome.

Constantius II, 323-361.

2-4	D N CONSTANTIVS P F AVG. Diademed, draped bust to r.	FEL TEMP REPAR- ATIO. Emperor to l. spearing fallen horse- man. In the exergue, R-wreath-uncertain letter. Mm. 17-18. Mint, Rome. Voetter, p. 249, no. 59. Cohen <sup>3</sup> 45.
5-8	Similar, but very worn.	Similar, but very worn. Mint letters illegible. Mm. 13-16.
9	Similar.	Similar. In field, M. Exergual letters "off flan." Mm. 14.5.

<sup>2</sup> Die Münzen der römischen Kaiser, Kaiserinnen und Caesaren von Diocletianus bis Romulus. By Otto Voetter. Vienna 1921.

<sup>3</sup> Description historique des monnaies frappées sous l'Empire romain. By Henri Cohen. Paris, 1882.

## 24 HOARDS FROM MINTURNO

- |    |                             |   |
|----|-----------------------------|---|
| 10 | Similar.                    | Similar. In field, •M•<br>Exergual letters off flan.<br>Mm. 15. Probably<br>struck at Constanti-<br>nople or Cyzicus. |
| 11 | Similar to the preced-      | None of the mint letters  |
| to | ing numbers, but            | are legible. Mm. 13-  |
| 16 | <i>halved</i> , by cutting. | 16.   |

### Jovianus, 363-364.

- |    |   |   |
|----|---|---|
| 17 | The entire legend is off<br>flan. Diademed,<br>draped bust r. | VOT   V   MVLT   X<br>in wreath. Exergue off<br>flan. Mm. 14.5. Voet-<br>ter, p. 254, no. 2.<br>Cohen 35. This coin<br>might equally well be<br>an issue of Valens<br>(Voetter, p. 256, no. 1). |
|----|---|---|

### Valentinian I, 364-375.

- |    |   |   |
|----|---|---|
| 18 | . . . . . IAN-<br>VS P F AVG. Dia-<br>demed, draped bust r. | (SECVRITAS REI-<br>PVBLICAE) Victory<br>advancing to l. Very<br>worn. Mm. 14. Voet-<br>ter, p. 255, no. 7.<br>Cohen 37. |
|----|---|---|

### Valens, 364-378.

- |    |  |   |
|----|--|---|
| 19 | . . . . . S P<br>F . . . Diademed,<br>draped bust r. | Similar to the preced-<br>ing, but very much<br>worn. Mm. 16. Voet-<br>ter, p. 256, no. 6.<br>Cohen 47. |
|----|--|---|

## Valentinian I, Valens, or later.

- 20 Similar to the preced- Similar types, but very  
to ing but very much much worn. Mm. 13-  
22 worn and illegible. 15.

## Valentinian II, 375-392.

- 23 D N VALENTINI- SALVS REIPVBLI-  
to ANVS P F AVG. Di- CAE. Victory holding  
24 ademed, draped bust to trophy and dragging  
r. a prisoner to l. In l.  
field, P. In the ex-  
ergue, R.B. Mint,  
Rome. Mm. 12-13.  
Voetter, p. 258, no. 6.  
Cohen 30.
- 25 Similar. Similar but the ex-  
to ergues are off flan.  
27 Mm. 13.

## Theodosius I, 379-395

- 28 D N THEODOSIVS Same inscription and  
P F AVG. Diadem- type as on the preced-  
ed, draped bust to r. ing. In the exergue,  
SMKΔ. Mint, Cyzi-  
cus. Mm. 13.5. Voet-  
ter, p. 148, no. 9.  
Cohen 30.
- 29 Same type and inscrip- VOT X MVLTT XX  
tion. within a wreath. In  
the exergue, SMKB.  
Mint, Cyzicus. Mm.  
14. Voetter, p. 148,  
no. 8. Cohen 70.

26 HOARDS FROM MINTURNO

- |    |   |   |
|----|---|---|
| 30 | Inscription illegible.<br>Bust to r.  | Inscription illegible.<br>Two victories <i>vis-à-vis</i> .<br>Mm. 11. Probably<br>Cohen 43. Very much<br>worn.  |
| 31 | D . . . . . P<br>F AVG. Diademed,<br>draped bust to r. This<br>might also be a coin of<br>Honorius. | (GLORIA ROMAN-<br>ORVM). Two emper-<br>ors standing, facing,<br>holding spears and to-<br>gether supporting a<br>globe. Exergue off flan.<br>Mm. 14. Cf. Cohen<br>VIII, p. 157, no. 25<br>and p. 181, no. 27. |

Honorius, 393-423.

- |                |   |   |
|----------------|---|---|
| 32             | D N HONORIVS P F<br>AVG. Diademed,<br>draped bust to r. | (GLORIA ROMAN-<br>ORVM). Emperor<br>standing between two<br>captives. Mm. 15.<br>Cf. Voetter, p. 260,<br>no. 4. Cohen 24. |
| 33             | . . HONORI . . . . .<br>Similar type.                   | (GLORIA ROMAN-<br>ORVM). Three em-<br>perors standing, facing.<br>Exergue off flan. Mm.<br>13. Cohen 28.                  |
| 34<br>to<br>35 | . . . . NORI . . . . .<br>Similar type.                 | Illegible. Figure of<br>victory to l. Mm. 12-<br>13. Probably Cohen<br>39. Very much worn.                                |

## Arcadius, 395-408.

- 36 D N ARCADIVS P F VIRTVS EXERCITI.  
AVG. Diademed, Victory advancing l.  
draped bust r. crowns the emperor  
standing facing. Ex-  
ergue off flan. Mm. 16. Sabatier,<sup>4</sup> Pl. IV, 17.
- 37 D N ARCADIVS P F VIRTVS ROMAN-  
AVG. Diademed, ORVM. Arcadius  
draped bust to r standing, facing, holds  
spear and globe sur-  
mounted by a victory.  
In field, OF — T. In  
the exergue, SMROM.  
Mm. 17. Mint, Rome.
- 38 Similar type and in- SALVS REI(PVBLI-  
scription. CAE). Type as on  
nos. 23-28. In the ex-  
ergue, CONS. Struck  
at Constantinople.  
Sabatier, Pl. IV, 18.  
MM. 11.5.
- 39 Similar to the preced- Similar to the preced-  
to ing. ing. The exergues are  
41 off flan. Mm. 13 and  
13.5. Very much worn.
- 42 Similar to the preced- VOT | X | MVL | XX  
ing. within a wreath. In  
the exergue, SM . . .  
Mm. 14. Sabatier, Pl.  
IV, 20.

<sup>4</sup> Description générale des monnaies byzantines. By J. Sabatier.  
Paris, 1862.

## 28 HOARDS FROM MINTURNO

### Illegible Issues of the Preceding Emperors.

- |    |   |   |
|----|---|---|
| 43 | Diademed, draped bust<br>r.   | Emperor advancing to<br>r. dragging captive<br>with r. hand. Mm. 17.<br>Very worn.  |
| 44 | Same types as the pre-<br>ceding. The coins have                                    | Very worn.  |
| 49 | been <i>halved</i> in ancient<br>times.   |   |
| 50 | Diademed, draped bust<br>r.   | Victory advancing to l<br>Mm. 13. Very worn.  |
| 51 | Same types as the pre-<br>ceding. The coins have                                    | Very worn.  |
| 52 | been <i>halved</i> in ancient<br>times.   |   |
| 53 | Diademed, draped bust<br>to r.  | (SALVS REIPVBLI-<br>CAE). Victory to l.<br>holds trophy and drags<br>a captive. Mm. 11-12.<br>Very worn.  |
| 59 |   |   |
| 60 | Diademed, draped bust<br>to r. Honorius ?   | (VRBS ROMA FE-<br>LIX ?). Roma (or the<br>emperor) standing to<br>l., holds victory on<br>globe in outstretched<br>r. and rests l. on spear.<br>Mm. 13-14.5. Cf.<br>Cohen VIII, p. 188,<br>no. 72. All very worn. |
| 63 |   |   |
| 64 | Similar to the preced-<br>ing. The coin has been<br><i>halved</i> in ancient times. | Very worn.  |

- 65 Similar types as on nos. 60-63, but this specimen has been struck on an extraordinarily thick planchet. • Very worn. Mm. 12.
- 66 . . . . . VS P F AVG. Diademed, draped bust (of Arcadius ?) to r. The inscription is completely off flan. Emperor standing, facing, holds labarum in r. and rests l. upon shield. Very thin planchet. Mm. 12.5.
- 67 Imperial bust to r. So worn that neither  
to Worn almost smooth. types nor inscriptions  
73 Type and fabric is similar to those of the preceding emperors. are visible. Mm. 11.5-12.5.

## Theodosius II, 408-450.

- 74 Small diademed, CONCOR)DIA  
to draped bust to r. In- AVGGG. Large cross.  
75 scription illegible. In the exergue, SMNΔ (or A). Mm. 10.5. Mint, Nicomedia. Sabatier, Pl. V, 18.
- 76 D N TH . . . . . Long cross surrounded  
to SIVS P F AVG. (Por- by a wreath. Exergue  
78 tions of this inscription off flan. Mm. 11-11.5. Similar to Sabatier, Pl. V, no. 20. are visible on all three specimens). Diademed, draped bust to r.

30 HOARDS FROM MINTURNO

- 79 Similar to the preced- VT | XXX | V within  
to ing. a wreath. On one  
82 specimen, in the ex-  
ergue, CON. Struck  
at Constantinople.  
Mm. 9-10.5. Saba-  
tier, Pl. V, 17.

Valentinian III, 425-455.

- 83 D N VALENTINI VOT PVB. Building,  
ANVS P F AVG. Di- with large gate and  
ademed, draped bust two towers. Above,  
to r. S . In the exergue,  
RM. Mint, Rome.  
Mm. 12. Voetter, p.  
260, no. 3. Cohen 39.
- 84 Similar. Similar, but with T  
to above. Mm. 12-13.  
85 Voetter, p. 260, no. 3.
- 86 Similar to the preced- Similar to the preced-  
to ing, but with Q above.  
88 Mm. 12-13. Voetter,  
p. 260, no. 3. Cohen  
40.
- 89 Similar to the preced- Similar, but with the  
to ing. officina letter off flan.  
91 Mm. 11.5-12.5.
- 92 Similar to the preced- Similar to the preced-  
ing. The coin has been ing.  
*halved* in ancient times.
- 93 Same type and inscrip- VOT | . | XX within  
to tion as on nos. 83 ff. a wreath. In the ex-  
94 ergue, T (?). Mm.  
12-13. Not described  
by Voetter or Cohen.



- 95 D N VALENTINI- VICTORIA AVGGG.  
to ANVS P F AVG. Only Two victories *vis à-vis*.  
108 portions of this inscrip- In the exergue, RM .  
tion are to be seen on Mint, Rome. Mm. 11-  
single coins. Dia- 13.5. Voetter, p. 260,  
demed, draped bust to no. 2. Cohen 15 and  
r. 16.
- 109 D N VALENT . . . . . VICTORIA AVGG.  
to . . . . . Diademed, Victory advancing to  
110 draped bust to r. l. holding wreath in  
her outstretched r. In  
l. field, star. In r.  
field, P . Mint, Rome.  
Mm. 10.5-13. Variety  
not described by Voet-  
ter or Cohen.
- 111 DN . V . . . . . Same type and inscrip-  
NVS P F AVG. Sim- tion, but with T in r.  
ilar bust to r. field. Mm. 11.
- 112 D N VALEN . . . . . Same type and inscrip-  
to . . . Similar bust to r. tion, but with the  
119 officina letter off flan.  
Mm. 11-12.
- 120 Portions visible of D N VICTORIA AVGG.  
to VALENTINIANVS P Same type as on the  
124 F AVG. Diademed, preceding. No star in  
draped bust r. field. In l. field, P .  
Mm. 9-11. Variety of  
Cohen nos. 12-13.
- 125 Similar to the preced- Similar to the preced-  
ing. ing, but with S in l.  
field. Mm. 11. Cohen  
13.

- 126 On one specimen the Similar to the preced-  
to inscription appears to ing, but with T in l.  
128 be: D N PLA V . . . . field. Mm. 10-11.5.  
. . . . .
- 129 Illegible. Similar to the preced-  
ing, but with Ø in l.  
field. Mm. 12.
- 130 Portions only of in- Similar to the preced-  
to scription visible. ing, but with € in l.  
133 field. Mm. 9.5-11.  
Cohen 12.
- 134 Portions only of in- Similar, but portions  
to scription and type visi- only of type and in-  
158 ble. scription visible. Offi-  
cina letter off flan.  
Mm. 9.5-11.5.
- 159 Fragments of coins  
to similar to the preced-  
163 ing.
- 164 Apparently crude, il- Traces only of a crude  
to legible copies of nos. figure of victory to l.  
168 120 to 163. Traces Mm. 8.5-9.5.  
only of diademed,  
draped bust r.
- 169 Imitations of late Crude figure of victory  
to fourth and early fifth or of an emperor stand-  
174 century imperial issues. ing, surrounded by an  
Crude bust r. sur- illegible inscription.  
rounded by an illegible Very thin planchets.  
inscription. Mm. 10-13.5.
- 175 Illegible fragments,  
to some very minute.  
193

Being for the most part well known, few of the coins in this hoard call for any remark. With certain exceptions, the earlier issues, such as nos. 1-73, are very much worn by long continued circulation. In fact, many (nos. 20-22, 43-73) are so worn that only by their general appearance, fabric and planchets is it possible to assign them, with any probability, to the reigns from Constantius II to Arcadius and Honorius. Of some interest are the rather numerous instances (nos. 11-16, 44-49, 51-52, 64, 92, and possibly some included among the fragments 159-163 and 175-193) of coins cut in two in order to circulate as halves of the ordinary denominations. Their number seems large and serves to throw a side light on both economic conditions and the sad state of the currency in the middle of the fifth century A. D.

The crudely made little coins of Valentinian III (nos. 83-163 and their imitations nos. 164-168) constitute nearly half of the entire deposit. With the possible exception of the imitations, all appear to have been struck at Rome. Style and fabric are the same throughout, while nos. 83-105 bear the mint's initials RM. Because these coins are crude and unattractive, they have seldom appealed either to collectors or students, with the result that they have been collected only casually and few varieties have been catalogued. The large number included in our hoard, therefore, allows a little clearer insight and a fuller understanding of the sequence and extent of Valentinian III's Roman copper issues than has hitherto been possible.

These coins of Valentinian III from the mint at Rome seem to proceed in an ever descending scale, both with regard to the size of the planchets and to the quality of execution, thus furnishing us with a rough criteria for arranging them in the order of appearance of the various types. Accepting this observation as a general guide, nos. 83–92 would appear to be the first issue. While crude in appearance—like all the bronze issues of Valentinian III—their flans are larger, more nearly round and better struck than is found to be the case with most of the succeeding issues. The type of the towered gate, though not the accompanying inscription (i. e. VOT. PVB.), is taken from the coins of Magnus Maximus (Cohen 7) and his son Flavius Victor (Cohen 3). The type itself, of course, goes back in its original form to the common issues of Constantine the Great and his sons. We do not find Valentinian's personal name PLA (for Placidius)—as claimed by Cohen in his description of similar pieces nos. 36, 38, 39, 40—on the coins present in our hoard, where the commencement of the obverse inscription is still visible.

Probably the next type is represented by nos. 93–94, bearing the inscription VOT XX contained in a wreath. Under ordinary circumstances these coins would be assigned to about the year 434–435, though in the late empire considerable liberty was taken in the recording of votives. Thus, for instance, on the coins of Jovianus, who is known to have reigned but seven months and twenty days, do we find the inscription VOT. V. MVLT. X. Our

type is unrecorded in either Cohen or Voetter and appears to be unpublished. In workmanship and style the coins are very similar to nos. 83–92 and so could not have been much later in time of issue.

Nos. 95–108 would appear to be the next issue. In style and die-cutting, they are very much cruder than any of the preceding, the flans are smaller and more irregular, the striking is very carelessly carried out. The type of the two victories *vis-à-vis* and the accompanying inscription VICTORIA AVGGG (sic! the AUGGG form now constitutes an anachronism) were copied directly from similar coins of Theodosius I (Cohen 43) and Magnus Maximus (Cohen 13). In this case, too, none of our more legible specimens give the letters PLA or PL before the name of Valentinian, thus conforming to Cohen's no. 16, but not to his no. 15.

The still more crudely made group (nos. 109–119) follows, bearing the type of a single victory facing to left, surrounded by the now correct inscription VICTORIA AVGG. The coins are distinguished from the following ones by the presence of a star in the field in front of Victory and by an officina letter (in this case P or T) behind her. In no instance does the exergue appear on the flan, rendering it uncertain whether the usual mint letters RM are present or not. Probably they were, as fabric and style of these coins point unmistakably to Rome as their mint. In every case, where visible, the name of Valentinian follows immediately upon the opening formula D. N. Cohen describes (under his nos.

12 and 13) somewhat similar pieces but does not mention the presence of the star symbol and claims to be able to read the letters PL or PLA in the obverse inscription. On his coins the mint mark RM was apparently visible in the exergue.

Even more badly made than the preceding are the coins of the final group, nos. 120–168. In fact, so utterly barbarized in style and so miserably minute in size are the little flans of nos. 164–168 that it has been deemed advisable to segregate and to describe them as imitations. On the whole, types and inscriptions are the same as for the preceding group, except that the star in the left field of the reverse has disappeared and its place has been taken by the officina letter (P, S, T, Q, €). In one very doubtful instance (no. 126) the obverse inscription does seem to contain the letters PLA following the usual D. N. All of the remainder, which chance to be in any way legible, certainly do not possess these letters, although Cohen (nos. 12 and 13) describes them as present on specimens of this type known to him.

Coins of types very similar to nos. 120–163, but bearing the inscriptions of the succeeding emperors Avitus and Majorian, are known.<sup>5</sup> None, however, so far as it is possible to ascertain by a most careful inspection of the all but illegible obverse inscriptions of nos. 120–163, appear to have been contained in the Minturno hoard. In other words, we have here no coins struck later than 455 A. D., in which year Valentinian III died by an assassin's hand.

<sup>5</sup> Cohen *loc. cit.* p. 221 nos. 7–8; p. 224, nos. 4–7.

Judging by the fact that all of Valentinian's known bronze types of Roman coinage are present in the hoard, we may assign its termination to a date not earlier than the final years of that emperor's reign. As his coins show few signs of circulation the final possible date must not be placed much after his death; and this is supported by the complete absence of any coins of Avitus and Majorian. Too much weight, however, must not be placed upon the last argument as the bronze coins of those two emperors are extremely rare and examples might well have failed to reach the hands of our hoard's last owner when he finally placed his savings in the old ox-bone and hid away his strange and homely "savings bank." What really actuated his successful attempt to preserve his treasure will probably never be known.

We can hardly associate that act with the events which rapidly followed each other at Rome after Valentinian's death—such as the short and troubled reign of Petronius Maximus, his assassination just preceding the seizure and sack of the city by Gaiseric and his Vandals in 455, the accession and rapidly succeeding death of Avitus and the ensuing accession to the throne of Majorian. These events, while disastrous to the empire as a whole, at Minturnae probably caused no actual disturbance sufficient to induce the owner of our hoard to hide it, especially as its intrinsic value was so slight. We know that during the years which followed 455, the Vandals continuously harried the coasts of Italy, making

practically annual<sup>6</sup> descents upon the rich lands of Campania, Lucania and Apulia. But it is expressly stated<sup>7</sup> that they seldom or never attacked defensible cities, and we possess no record that Minturnae in particular was ever directly threatened—much less captured and sacked—by them.

In this connection Dr. Johnson reports with regard to the building in whose ruins the hoard was found: "I suspect that it was hidden under the eaves of the building and stayed there until a late period. The next succeeding destruction date (after the destructive fire of about 50 B. C.) is the Longobard invasion of 590 A. D. . . . and there is evidence to show that the street was kept clean of rubbish until about 590."<sup>8</sup> We are therefore hardly justified in connecting its deposit with any public disaster. We may indeed surmise that the hoard was hidden away for reasons known only to its former owner and that it was never afterwards retrieved because either forgotten or because some purely personal event prevented his return to claim it.

<sup>6</sup> For instance, on page 435 of Hodgkin's *Italy and her Invaders*, Vol. II, we read: Every year, with the return of spring, he (Gaiseric) sailed his piratical fleet to the coasts of Campania or Sicily or Apulia.

<sup>7</sup> Hodgkin, *loc. cit.*, p. 435, who says: He (Gaiseric) avoided the large towns, fearing to find there sufficiently large bodies of troops to check his advance, and fell by preference on the villages and unwall'd towns, carrying off all the moveable wealth and making slaves of the inhabitants.

<sup>8</sup> Letter from Dr. Johnson to the author, dated Oct. 6th, 1932.



MINTURNO - H'D I.

PL. I



7.



11.



16.



11.



19.





MINTURNO - H'D I.

PL. II



22.



28.



39.



28.



41.



45.





MINTURNO - H'D I.

PL. III



57.



58.



59.



61





MINTURNO, H'D II.

PL. I



RECEPTACLE OF HOARD II.

Scale (approx)  $\frac{1}{2}$ .





MINTURNO - H'D I.

PL. II



22.



28.



39.



28.



41.



45.





MINTURNO - H'D I.

PL. III



57.



58.



59.



61







RECEPTACLE OF HOARD II.

Scale (approx)  $\frac{1}{2}$ .





2.



23.



11.



44.



76.



37.



79.



83.



84.



93.



95.



112.



126.







Cf  
35  
N9

FEB 6 1934

# NUMISMATIC NOTES AND MONOGRAPHS

No. 61



## THE GAMPOLA LARIN HOARD

BY  
HOWLAND WOOD

THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
NEW YORK  
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# NUMISMATIC NOTES AND MONOGRAPHS

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*Photo. by Dr. Andreas Nell.*

Glazed earthen "chetty" which held the  
Gampola hoard.  
7 in. by 7 in. Kandy Museum.

# THE GAMPOLA LARIN HOARD

BY  
HOWLAND WOOD



THE AMERICAN NUMISMATIC SOCIETY  
BROADWAY AT 156TH STREET  
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# THE GAMPOLA LARIN HOARD

BY HOWLAND WOOD

## INTRODUCTION

During the autumn of 1925, in the neighborhood of Gampola, a village in the central part of Ceylon an earthen pot (see frontispiece) containing a large number of coins was dug up in a garden. The bulk of the find consisted of bent pieces of silver wire known as *larins*. The exact number of pieces in the find is not known, but the greater part was purchased from four intermediaries by Dr. Casey A. Wood of Pasadena, California, who was visiting the island at the time. It is known that a few pieces with the same characteristic patination were being hawked about the bazaars of Kandy at about the same time; a number of these were obtained by Dr. Wood both then and subsequently. The presumption is that the find as now brought together (819 larins and 114 coins) forms a very considerable part of the whole. The find contained probably the largest number of larins ever found at one time, certainly the largest number ever found in Ceylon.

In this assemblage are about as many larins as had heretofore been known. No large numbers are in any one collection; probably many museums have from ten to fifty specimens of all kinds gathered from various localities in Arabia, Persia, India and Ceylon, but the provenience for the most part is un-

## 2 THE GAMPOLA LARIN HOARD

certain. This find offers the first opportunity for studying a large number. Little has been published on larins as a whole, and because of lack of comparative study, few if any worthwhile conclusions have consequently been made. Probably one of the reasons for this neglect is the fragmentary nature of the inscription found on any one specimen. The width of the larin is about one-eighth of an inch; it very rarely exceeds a quarter of an inch, and the dies used in stamping were for the most part circular coin dies varying from five-eighths to over an inch in diameter. Heretofore most of the inscribed pieces have shown parts of Arabic or Persian words, or religious formulas common to Mohammedan coins, or have been fragments of designs without any special meaning or purpose.

Shortly after Dr. Wood acquired the find, it was submitted to John Still, Esq. formerly Assistant to the Archaeological Commissioner of the Government of Ceylon who not only was instrumental in assembling the hoard but who also made a preliminary report (unpublished) to Dr. Wood. To Mr. Still belongs the credit of having discovered certain of the pieces to have inscriptions sunk, rather than in relief, and reversed. He also discovered that these pieces were impressed from coins acting as dies, chiefly from coins of mediaeval Sinhalese rulers, but also from Dutch coins.

Years ago W. B. Dickinson advanced the idea that certain larins had on them letters resembling Devanagari and suggested that they might have

been struck by some Kandyan king. Also in an early journal of the Bombay Branch of the Royal Asiatic Society, the assignment of larins to Prakrama Bahu, 1153-1186, was made.<sup>1</sup> I find no further mention of such larins after this date, in fact most pieces chronicled since have partial Persian inscriptions.

The town of Gampola where the find was made is a small place about twelve miles south-southwest from Kandy on the banks of the Mahaweliganga about fifteen hundred feet above sea level in the central highlands of Ceylon. Under the name of Ganga-siripura, the Royal City of the River, it was the capital for a brief period beginning 1344 A. D.

The find as assembled by Dr. Wood numbered 933 pieces, 819 of which were silver larins; these were for the most part of a dull dirty greyish color, some, however, had their natural silver brightness. Many had spots of hard green corrosion and at least fifty appeared to be copper, but this was a superficial coating and on applying dilute acid the pieces turned out to be of as good consistency as the rest. Three (all detected up to date) were contemporary forgeries, made of copper wire silvered. These were easily detected as the corrosion had eaten through the silver covering exposing the copper core.

Number 121 in the catalogue is shown on the next page. The others are Nos. 2 and 154. An analysis of one of the pieces was made and the conclusions

<sup>1</sup> *Vide* articles by Dickinson and Vaux in Num. Chron. Vol. XI, 1849; XII, 1850, and XVI, 1854.

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reached were that the original small ingot of copper for drawing the wire was dipped in a molten bath of pure silver solder or else a coating of silver solder was applied in the cold and then melted on. The composite ingot was then drawn down to requisite size.<sup>2</sup>

All of the larins appear to be of good silver, with the exception of four, Nos. 85, 86 and 155. An analysis of the latter piece showed about 46% copper.



Four specimens from the find were analyzed, three of Sinhalese or Kandyan origin and one of Persian mintage. The numbers refer to the catalogue.

<i>No.</i>	<i>Silver</i>	<i>Copper</i>	<i>Gold</i>	<i>Lead</i>
8	94.90%	4.85	Present	Negligible
43	90.60%	7.70	Present	Present
54	94.25%	4.50	Present	Present
304	96.70%	3.20	Present	Negligible

From the above we see that the three Kandyan larins although of good silver content from a coinage standpoint are not of quite as good silver as the one

<sup>2</sup> Col. B. Lowale (Coins and Tokens of Ceylon, Num. Chron. III series, Vol. XV, 1895), in his search in Ceylon for coins found few larins and said he came across a number of forgeries of clumsy workmanship. Probably most of these were genuine enough, as larins of all sorts of workmanship were in the find.

made in Persia, No. 304. Several of the early travellers state that the best silver is in the Persian and Hormuz larins. To quote one writer, Pyrard,<sup>3</sup> "The best silver in the Indies is that which comes from Persia by way of Ormus in (the form of) a long coin, called *larins*, which the smiths of India prize highly, and use to their great advantage, being a very pure, clean, soft and ductile silver, and good for working."

Both Mr. W. H. Biddell of Kandy, Ceylon and myself have found that in opening up larins in order to examine the inscription those of Sinhalese manufacture sometimes break while the Persian ones bend easily. As the variation of the silver content of those examined would not make this difference the cause is probably due to the lack of annealing of the wire.

The coins other than larins found in the hoard fall into two divisions—copper coins<sup>4</sup> of the Sinhalese rulers of the XIII century, 43 in number and representing six rulers, and Portuguese silver coins of the XVII century.

These copper coins are very common and are found in large quantities in Ceylon for most of the rulers. They have a standing figure on one side and a seated figure and inscription on the other. See Plate II. The coins themselves were heavily encrusted with a bright green patination.

As noted elsewhere, many of the larins in the find were stamped with coins of this class used as dies.

<sup>3</sup> Voyage of Francois Pyrard of Laval (Hakluyt Soc. 1887, Vol. II, p. 174.

<sup>4</sup> See page 78.

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As a rule it would seem unusual for coins made at one time to be mixed with coins made four centuries later, especially as the earlier coins appear to be unworn. These copper pieces, however, have been dug up for centuries in great numbers and today are constantly being unearthed, often by the potful, even in the remote villages in the jungle. Codrington mentions that they were current in the early seventeenth century.<sup>5</sup> Therefore a representation of these in the Gampola find would not be unusual, and the presence of these has shown that the burier was in all probability a larin maker, silversmith and small banker and these coins were a part of his stock of dies. It is also possible that he was the manufacturer of other pieces but struck from dies made for the purpose, such as Nos. 43 and 45, as numbers of these were present and none showed signs of wear.

The Portuguese colonial coins in the find numbering 70 pieces are most important. Some had a glossy black oxidization and some showed patches of a red rusty corrosion, and like the larins nearly all were flecked with green patination. These coins are all scarce and many are rare. All of the coins are listed at the end of the catalogue. Several of the coins were cast counterfeits of the time, not quickly detected as the dies of the struck pieces were for the most part rough and crude and consequently gave to the coins themselves somewhat the appearance of being cast. The weights, however, quickly indicated their spuriousness.

<sup>5</sup> H. W. Codrington, *Ceylon Coins and Currency*, Colombo, 1924, p. 175.

The composition of this hoard is interesting because the larins and Indo-Portuguese pieces are found together. This confirms the remarks of two Europeans who were in the interior at approximately the time of its burial. Codrington<sup>6</sup> says that at the time of Sebald de Wirt's expedition (circa 1602), larins and fanams of gold and silver were current and that these coins remained in circulation in the Kandyan Kingdom side by side with Portuguese money for very many years after the Dutch occupation of the coast. He quotes Knox, who was a prisoner there from 1659–1679: "Portuguese double and single tangas of the Saint type, the *tangam massa* and the *podì* (little) *tangama*, larins made by private parties, five of which went to the piece of eight; and silver fanams, struck by the king, of which seventy five made a piece of Eight, or a Spanish dollar." No fanams appear to have been in the find.

Mr. Biddell has informed me that several other finds of Indo-Portuguese coins in conjunction with larins have occurred in recent years, though none approximated this hoard in size.

Little can be gleaned from the larins themselves as to the date of the burial of the hoard, but we get clues from the Portuguese coins, especially from the two Dutch counterstamps found on a number of them. The earliest dated coin is 1631 and the last dated piece is 1655.

Although the Dutch appeared off the coast of Ceylon in 1602, they did not obtain a hold there until they became a strong sea power towards the

<sup>6</sup> *Op. Cit.* p. 174.

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close of their wars with Spain. They secured Galle in the southern part in 1640, Colombo in 1656 and in 1658 when Jaffna was occupied, the last Portuguese stronghold on the Island fell. The first countermark used by the Dutch was at Galle in 1655,<sup>7</sup> and bears the letters GAL in monogram. The V. O. C. in monogram, either plain or surmounted by a C (Colombo) or an I (Jaffna) was used after July 1661 when an order was given that no Portuguese coins, such as peruse, reals, etc. are to be accepted without having been stamped with the Company's mark.<sup>8</sup> Both of these stamps appear on coins in the hoard. As 20 of the 70 coins bear the mark of 1655, and but 8 of the coins bear the 1661 mark which is supposed to be the commoner stamp, this pot of coins was probably buried within a few years after this latter date, or about 1665; in other words before many of the coins bearing the V. O. C. stamp had reached the interior.

The absence of Dutch coins in the find is easily accounted for as the Dutch had hardly penetrated into the Kandyan country at the time these pieces were buried. In fact they did not obtain actual possession of this region until the eighteenth century. The few larins in the find impressed with the devices of the Dutch coins must have been made in the earlier days of their occupancy and could easily have come up from the coast in the course of trade, as the silver larin about 1661-2, according to Wouter

<sup>7</sup> Codrington *Op. Cit.* pp. 102 and 110.

<sup>8</sup> Codrington *Op. Cit.* p. 110, sec. 9.



Schouten, was the principal coin and was worth 10 stuivers.<sup>9</sup> This is confirmed by the preponderance of larins in the hoard.

The name Larin or Lari, said to have been derived from Lar in Persia where they were first struck, is the general appellation given to these pieces. Gasparo Balbi,<sup>10</sup> about 1583, was probably the first to mention the origin of the larin in the following statement.

"The first who began to strike them was the King of Lar, who formerly was a powerful king in Persia, but is now a small one."

Pietro della Valle (1614-1626), Sir John Chardin (1664-1674), and other writers mention that larins were made there.<sup>11</sup> Chardin visited Persia three times between 1664 and 1674. The Portuguese referred to them as *tanga larins* or *tanga de prata*<sup>12</sup> and oftentimes simply as *tanga*. The round coins known as tangas they generally termed *tanga redonda*.

Hook money or fish-hook money is the common English name given on account of the shape especially to the form used in Ceylon. *Koku Ridi*<sup>13</sup> (sometimes *Cocu Reedi*<sup>14</sup>) meaning hook silver, was the native name in Ceylon. *Dudu Massa* was

<sup>9</sup> Codrington *Op. Cit.* p. 110, sec. 9.

<sup>10</sup> From Hobson-Jobson, quoting from *Viaggio dell' Indie Orientale*, Venice, 1590.

<sup>11</sup> Sir Thomas Herbert in 1627 and Pietro Teixeira, end of seventeenth century.

<sup>12</sup> Codrington *Op. Cit.* p. 92.

<sup>13</sup> *Cod. Op. Cit.* pp. 162, 175.

<sup>14</sup> W. B. Dickinson, *Num. Chron.* XVI, 1854, p. 169.

another name as was *Mahu anguta*, or horned massa.

The beginning of the larin, like so many other beginnings is obscure. The Portuguese on arriving at ports in the Persian Gulf found them a full-fledged trading coin used extensively at ports there, and either found them already introduced by Mohammedan traders along the Persian littoral, down the west coast of India, in the Maldiv Islands and Ceylon, or introduced them in these islands. At any rate they much extended their use. The traffic in these did not seem to be west of the Persian Gulf and their extensive use stopped at Ceylon. I have been unable to find references of their being current on the east coast of India or in the countries beyond, although Gabriel Ferrand<sup>15</sup> quoting the *Livros dos Pesos* of Antonio Nunes (1554) states that at Satgaon in Bengal the larin equalled 48 *pone*.

The English merchant William Barret in 1584 in his table of moneys, weights and measures,<sup>16</sup> under the head of Malacca mentions Balsara (el Basra) or Ormuz larins as being worth nine to two crusados.

The earliest account that may refer to larins is by Gaspar Correia in *Lendas da India* under date of 1507 who refers to "*Xerafins e tangas de pratas*"<sup>17</sup> at Hormuz. Another early reference<sup>18</sup> is in the Book of Duarte Barbosa, c. 1518, which says, "In

<sup>15</sup> Les poids, mesures et monnaies des mers du sud aux XVI<sup>e</sup> et XVII<sup>e</sup> siècles, Paris 1921, p. 84.

<sup>16</sup> Hakluyt Principal Navigations. (Hakl. Soc., Extra Ser., 1904, Vol. VI, p. 22.

<sup>17</sup> H. W. Codrington. Coins of the Kings of Hormuz, Num. Chron. 4th Ser. XIV, 1914, p. 160.

<sup>18</sup> Hakluyt Soc. 1918, Vol. I, p. 100.

silver there is (in Ormuz) a long coin like a bean, also with Moorish letters on both sides, which is worth three vintems, more or less, which they call tangas, and this silver is very fine.

Da Cunha<sup>19</sup> gives a long account of the larin and quotes Felner in a document dated 1525, as follows:— "*Larym, palavra que, só de per si, significa a tanga larym ou de Larah,*" also he divides the coin into two kinds, old and new.

Barret<sup>20</sup> (1584), in his account of money and measures says:

"The sayd larine is a strange piece of money, not being round as all other current money in Christianitie, but is a small rod of silver of the greatnesse of the pen of a goose feather, wherewith we use to write, and in length about one eighth part thereof, which is wrested so that the two ends meet at the just halfe part and in the head thereof is a stamp Turkesco and these be the best current money in all the Indias, and 6 of these larines make a duckat, which is 40 medines or eight saies of Aleppo."

Another early account of the larin is given by Pietro della Valle (1614–1626)<sup>21</sup> as follows. "The lari is a silver coin that I will exhibit in Italy, most eccentric in form for it is nothing but a little rod of silver of a fixed weight and bent double unequally. On the bend it is marked with some small stamp or other. It is called Lari because it is the peculiar

<sup>19</sup> J. Gerson da Cunha, Contributions to the Study of Indo-Portuguese Numismatics. Reprinted in 1883 from Bombay Br. R. A. S. Jour.

<sup>20</sup> *Op. Cit.* p. Vol. VI, p. 12.

<sup>21</sup> Quoted in part by G. P. Taylor, Journ. As. Soc. Bengal, Vol. VI, N. S. 1910, p. 687. For a fuller account see *Viaggi di Pietro della Valle*, Brighton 1843, V. II, p. 434.

money of the Princes of Lar invented by them when they were separated from the Kingdom of Persia."

Tavernier, who made several trips to Persia between 1638 and 1663, in his *Six Voyages* Pt. II, under "Moneys of Arabia," has this to say:

"This Money (referring to his illustration) is called Larin and signifies the same with our Crowns. The five pieces are as much in value as one of our Crowns and the Ten-Half-Larins as much. Only the Five Larins want in weight Eight Sous of our Crown. This is that which the Emirs or Princes of Arabia take for the coining of their Money; and the profit which they make by the Merchants that travel through the Desert either into Persia or the Indies. For them the Emirs come to the caravans to take their Tolls and to change their Crowns, Reals or Ducats, of Gold for these Larins. . . . If these five Larins did but weigh as much as the Crown or Real of Spain, the Merchants would never be much troubled. But when they come to Persia or the Indies, they must carry their Money to the Mint, as I have said in another place, and lose about eight Sous in a Crown which amounts to 14 per cent. As for what remains the Larins are one of the ancient Coins of Asia and though at this day they are only current in Arabia and at Balsara (el Basra), nevertheless from Bragdatt (Baghdad) to the island of Ceylon, they traffick altogether with the Larin and all along the Persian Gulf, where they take 80 larins for one Toman which is fifty Abassi's."<sup>22</sup>

From the above it would seem that at one time Larins were extensively used in the overland routes and this would explain why some of the Persian larins were stamped at interior mints, such as Tabriz, Sheeraz, Kazvin, Kashan, Ganja, etc. He also mentions a half-larin which no one else mentions,

<sup>22</sup> London Edition 1678, Part II, p. 1, also Num. Chron. 4th Ser. Vol. XII, 1912.

nor have I ever seen one. His illustration shows only a larin of one prong, which is probably a regular larin divided.

This loss in exchange seems to have disturbed the French travellers as de Bazinghen in his Dictionary<sup>23</sup> quoting from an earlier source, Jacques Savary's Dictionary of Commerce, says it is worth 12 French sols, though worth intrinsically 11 sols 3 deniers. This difference is because the Arab princes by whom the new larins were made hold back 9 deniers per larin for seigniorage, also the old larins are more esteemed than the new.

Under the heading of "Shroffage" Codrington<sup>24</sup> quotes as follows:

"Linschoten who was in Goa between 1583 and 1588 says 'They buy the reals of eight when the ships come from Portugal and get these at 12 per cent; these they keep till the month of April which is the time the ships sail for China, when the reals of eight are sought after to send thither, and are worth commonly 25 and 30 per cent; and they take in their place a money which is at this time brought from Ormus, named Larijns, which come out of Persia, and which they get at said 10 per cent, and keep again till the ships come from Portugal in September; these they pay out at 25 and 30 per cent, in exchange for reals of eight, as has been said. One must have these Larijns to buy pepper and other wares at Cochim since it is there the best and most profitable money; . . . .'"

Sir John Chardin, who as already stated thrice visited Persia between 1664-74, has this to say.<sup>25</sup>

<sup>23</sup> M. Abot de Bazinghen, *Traité des Monnaies* etc. Paris, 1764, Vol. I, p. 616.

<sup>24</sup> *Ceylon Coins*, p. 95, quoting from *Itinerarium* of H. van Linschoten, Chap. 42, Amsterdam 1644.

<sup>25</sup> *Travels in Persia*. Argonaut Press, London, 1927, p. 287, also from the Amsterdam edition of 1711, Vol. IV, p. 279.

## 14 THE GAMPOLA LARIN HOARD

"There is a Coin all along the *Persian* Gulf, called *Larins*, which is the most common in Trade. *Larins*, signifies Coin of *Lar*, which is the Capital of *Caramania Deserta*; which was a distinct Kingdom before *Abas* the Great, King of *Persia*, who Conquer'd it, join'd it to his Kingdom about sixscore Years ago. That piece of Money is of good Silver, and is worth two *Chayez* and half, which comes to eleven Pence and three *Deniers* of *French* Money: The mark of it is very extraordinary, being a round wire of the bigness of a Quill folded in two, and a inch long, with a small Mark on it, which is the Prince's Stamp. None having been Coined since the Conquest, is the reson they are now very scarce. They do nevertheless reckon by that Coin in all that Country, and in the Indies, along the Gulf of *Gambay*, and in the Neighbouring Parts. They say, that formerly it was current throughout all the *East*."

Chardin does not seem to be as accurate as most of the other early writers. If Abbas I conquered Lar it must have been a reconquest. Zambaur<sup>26</sup> states that Ibrahim the last King of Lar was deposed by Tahmasp I the Safavid in 973 A. H. (1565 A. D.). Chardin also says that this money has been no longer struck since the conquest of the Kingdom. This statement is at variance with that of Sir Thomas Herbert<sup>27</sup> who was at Lar in 1627 and one would judge from his account that he actually saw larins made. He says:

"Near this Buzzer the Laryees are coyned; a famous sort of money being pure silver but shaped like a date stone, the King's name or some sentence out of the Alcoran being stamp'd upon it; in our Money it values ten pence."

<sup>26</sup> Manuel de Généalogie et de Chronologie pour l'histoire de l'Islam p. 260.

<sup>27</sup> Some Yeares Travels into Divers Parts of Asia and Afrique, London 1665.

Pedro Teixeira has this to say:<sup>28</sup>

"There is also the City of Lar or Lara as we Portuguese pronounce it, whence are called the laris, a money of the finest silver, very well-known and current throughout the East."

No specimens of the early larins of Lar bearing a sufficiently decisive legend have as yet been found. Codrington<sup>29</sup> tentatively assigns some of the date-stone shaped ones, which he has found in Ceylon to Lar. See plate IX, a-e under Indian larins.

Another mint was at El Basra where the Turkish sultans evidently made larins for the trade. They show fragmentary inscriptions from coin dies. They are extremely scarce. Two are listed in the Colombo Museum,<sup>30</sup> and several have been found in Ceylon bearing the names Sultans Ahmad I, Ibrahim and Suleyman, all of the seventeenth century. Pedro Teixeira<sup>31</sup> says the chief silver coins of El Basra (1604) were larins.

The production of larins at Hormuz must have been very extensive. It was subjected by Albuquerque in 1507 and was a most important half-way and transfer station under the Portuguese. It was taken by an allied English and Persian force in 1622. The making and exportation of larins probably stopped after this capture. They are today rare, and there was but one in the find. H. W. Codrington<sup>32</sup> describes a number struck during the Portu-

<sup>28</sup> The Travels of Pedro Teixeira etc. Hakluyt Soc., 1902 p. 241.

<sup>29</sup> Ceylon Coins, p. 163.

<sup>30</sup> Catalogue of Coins in the Colombo Museum, p. 58.

<sup>31</sup> *Op. Cil.* p. 30.

<sup>32</sup> Coins of the Kings of Hormuz, Num. Chron. 4th Ser. Vol. XIV, 1914, p. 156.

guese period bearing the names of Turan Shah (1543-c.1563) and Farrukh Shah (1564-c.1601). The Hormuz larins were held in high esteem. Pyrard<sup>33</sup> in the early seventeenth century writes, "It is a kind of money that was current throughout the Indies, and it was made in many places, but the best was forged at Ormaz."

Another larin of a slightly different type bearing a strong resemblance to a cotterpin (Plate IX q and r) was made in El Hasa in Arabia on the western side of the Persian gulf. These are often called Nedj larins and if not in use today have circulated up to recent times. They have been made for several centuries and are rather common, but probably have not been made in recent years as most specimens observed are very much worn. They are of extremely base metal, and are a trifle smaller than other larins, and were apparently stamped with coin dies. The inscription, so far as I know, has not been read, nor have I ever seen a coin struck from these dies. The best account is by W. G. Palgrave<sup>34</sup> who says:

"But in Hasa we find an entirely original and a perfectly local coinage, namely, the 'Toweelah' or 'long bit,' as it is very suitably called, from its form. It consists of a small copper bar, much like a stout tack, about an inch in length, and split at one end, with the fissure slightly opened; so that it looks altogether like

<sup>33</sup> Voyage de François Pyrard de Laval. Paris 1679. Vol. I, chap. 27, also Hakluyt Soc. 1887, Vol. I, p. 232, and Codrington, Ceylon Coins, p. 63.

<sup>34</sup> Journey Through Central and Eastern Arabia, London, 1865, Vol. II, 179.



a compressed Y. Along one of its flattened sides run a few Cufic characters, indicating the name of the Carmathian prince under whose auspices this choice production of Arab numismatics was achieved; nothing else is to be read on the Toweelah, neither date nor motto. Three of these are worth a 'gorsh' and accordingly every copper nail separately may equal about three farthings. This currency is available in Hasa its native place, alone, and hence the proverb, 'Zey' Toweelat-il-Hasa,' 'like a Hasa long bit,' is often applied to a person who can make himself valuable at home. Silver and gold Toweelahs were issued in the days of Carmathian glory; but they have been long since melted down."

The Persian larins, or rather those struck by or in the names of the Safavid Shahs, are not rare. Few details have come down to us about these. They appear to have been struck at several of the regular mints stamped by regular coin dies and as stated above were probably for the overland trade, for otherwise why should we get such a far northern mint as Ganja (see No. 301). Olearius<sup>35</sup> states that Ismael I (1502-24) the first Safavid Shah had coined larins. They were probably made until the end of the seventeenth century. Another class of larins, of undoubtedly Persian make were struck from long narrow dies made for the purpose (see 306-308). These may or may not have been made in regular mints.

Larins were in extensive use along the coast of Western India and were probably made at several places. A number of finds have been reported, several around Goa, and in 1846 a hoard of

<sup>35</sup> Voyages and Travels of the Ambassadors etc. English trans. by John Davies, London 1669.

397 was dug up at Sangameswara on the coast of Canara, fifty of which went to London and were in the East India Company's collection.<sup>36</sup>

I can find no direct evidence that they were made at Goa or Diu, though they were extensively used there, as we find frequent references of their ratings and exchange values. For many years they were current up and down the west coast at 60 reis.

Master Caesar Frederike,<sup>37</sup> who was in the East from 1563–81, in his description of Cambay in Gujerat gives the following interesting account:—

“The time that I was there, the city was in great calamity and scarsenese, so that I have seen the men of the Country that were Gentiles take their children, their sonnes and their daughters, and have desired the Portugalls to buy them, and I have seene them sold for eight or ten larines a piece, which may be of our money X S, or xiii s. iiii d.”

Pyrard,<sup>38</sup> in speaking about the money of Goa says that the larins come from Persia and Ormuz, and elsewhere says that much of the silver money that is called larins comes from Ormuz and is the finest silver in the world.

In the Kingdom of Bijapur, which extended around Goa larins were extensively made, and many have come down to us. (See plate IX, f, g, h.) They have the inscription in Arabic *Ali Adil Shah* and sometimes the date showing they were made

<sup>36</sup> Prof. H. H. Wilson, Num. Chron. XVI, 1854, p. 179.

<sup>37</sup> Hakluyt Principal Navigations, Vol. V, p. 374 (Halk. Soc. Ex. Ser. 1904).

<sup>38</sup> The Voyage of Francois Pyrard, Vol. II, pp. 68 and 239, Hak. Soc. 1888.

about the middle of the seventeenth century during the rule of Ali II. Some were undoubtedly much earlier. For a fuller account of these consult G. P. Taylor<sup>39</sup> and H. Cousens.<sup>40</sup>

An interesting note concerning the Bijapur larins is given by Allan as follows:<sup>41</sup>

“Captain Jourdain in his *Journal* (c. 1610–1619) tells us in his account of Dabul in Bijapur that ‘the factour of the Portugualls there pays the Governor of Dabul two thousand larins per year for the monopoly of selling wine.’ ”

Larins must have been made at Dabul, for Prof. Wilson<sup>42</sup> states that “in 1711 the Government of Satara gave notice to the authorities of Kharaputtan of a grant of land valued at 200 Dabal larins.”

To quote another instance of the use of larins along the west coast, Major R. P. Jackson<sup>43</sup> says:

“Larins were brought to the coast of Kerala i. e. West coast of South India from Cape Comorin to Goa, in the course of trade.”

- Southwest of India and about 400 miles west of Ceylon lie the Maldiv Islands. Numismatically these islands are known as the chief source of supply of the cowrie, the lowest valued currency in early times of China, India and Africa. Together with

<sup>39</sup> J. A. S. B. Vol. VI, N. S. 1914, p. 687.

<sup>40</sup> Bijapur and Its Architectural Remains, p. 129 and pl. CXV. in Vol. XXXVII for 1916 of the Archeological Survey of India Imp. Series.

<sup>41</sup> The Coinage of the Maldiv Islands.

<sup>42</sup> Num. Chron. XVI, p. 179.

<sup>43</sup> The Dominions, Emblems, and Coins of the South Indian Dynasties, Br. Num. Jour., Vol. IX, 1913, pp. 318–319.

the cowrie the larin was at one time the currency of the Maldives.

The larin has now nearly disappeared, and until recently no specimen had been actually identified.<sup>44</sup> Mr. Bell lately brought back several from the Maldives. These have been read by Mr. Bell and Mr. Codrington and bore the names of two of the seventeenth century Sultans:—Mohammad Ima-duddin I (1620–48), and Iskandar Ibrahim I (1648–87). One of Iskandar's larins belonging to the American Numismatic Society is shown on Plate IX, k, under Persian larins. Iskandar is credited with having struck the first round coin, which is also called a lari. Today the word lari remains included in the full names of all the denominations. The native name for the larin is *digu rihi lari* (long silver lari).

The best and earliest account of the Maldivian larins is given by Pyrard de Laval,<sup>45</sup> a Frenchman who was a captive there for five years between 1602 and 1607. It is as follows:

“The coin of the realm is silver only and of one sort. These are pieces of silver of about eight sous of our money as long as the finger and doubled down. The King has them struck in the island and stamped with his name in Arabic characters. Though foreign coins are current, they are only taken at their just weight and value, and must be in silver or gold; all others are rejected. The King coins larins only and no pieces of

<sup>44</sup> The one illustrated in the Hakluyt edition of Pyrard de Laval and which was obtained by Mr. H. C. P. Bell in the Maldives was certainly not made there.

<sup>45</sup> *Voyage de François Pyrard de Laval*. Paris 1679, also in Hakluyt Society's publications which is quoted by Allan.

less value; for the use of trade they cut the silver and pay by weight for the value of the goods bought. They take no silver without weighing and proving it, and every one has weights for this purpose. Then in place of copper and small change they use the shells of which I shall presently speak. 12,000 are worth a larin . . ."

We have shown the course of the larin from the region of the Persian Gulf and now come to its terminus the Island of Ceylon. It apparently went no further eastward, and judging from the number of bent ones versus straight ones seen today, they remained current in Ceylon later than elsewhere, barring the base toweelabs of El Hasa. Many of those from the continent found their last resting place there. According to Dr. John Davy<sup>46</sup> the larin continued in circulation in the Kandyan provinces for some years after the British accession in 1815.

Codrington<sup>47</sup> states that "The first record of the use of larins in Ceylon was in 1517 when the then King of Kotte is credited with the story of a homicide which occurred in his youth at Sitawaka, and in which the blood fine was 60 larins." As the Portuguese first landed in Ceylon in 1506, or about ten years before this account but after the event mentioned, this would tend to show that larins were in use there before the advent of the Portuguese. Dickinson<sup>48</sup> quoting Ribeyro's History of Ceylon says that the Portuguese introduced the use of pagodas, pardãos, and larins. There is no doubt that they vastly extended their use.

<sup>46</sup> Account of the Interior of Ceylon, 1821, p. 245.

<sup>47</sup> Ceylon Coins, p. 95.

<sup>48</sup> Num. Chron, Vol. XIII, 1851, p. 63 footnote.

In the inventory of the treasure of the King of Kotte plundered by the Portuguese in 1551 larins are mentioned.<sup>49</sup> Sometime before 1585 the Portuguese Captain of Colombo struck larins, again referring to Codrington<sup>50</sup> who quotes from a letter to the Viceroy as follows: "and because there was no money in the fortress (*sc.* Kotte), he called the Captain of the *inhames*, who was a friend of all the soldiers, and gave him a silver sword of his, and a dagger, and sword hilts, that he might melt it into larins, there being there craftsmen of that calling."

Vast quantities must have been in use as the Portuguese about 1596 captured five elephants laden with larins and two with Venetian sequins said to have numbered 100,000.<sup>51</sup> In 1621 a most interesting larin was struck by a Dane, Erich Grubbe in the east of Ceylon. Again quoting from Codrington<sup>52</sup> who says "Ove Giedde, the commander of the ill-fated Danish Expedition to Ceylon, thus refers to the coin in his journal: 'On the 19th April Heinrich Häs . . . presented me with one of the larins, which Erich Grubbe had coined in Ceilon. Upon it was in bold letters *Don Erich Grubbe.*'" Unfortunately no piece bearing this inscription was in the hoard. This is not strange as this larin was struck about forty years before on the east coast and probably in a limited quantity. The piece

<sup>49</sup> Codrington, *Op. Cit.* pp. 96 and 161.

<sup>50</sup> *Op. Cit.* p. 95, footnote 2.

<sup>51</sup> Codrington, *Op. Cit.* p. 96.

<sup>52</sup> *Op. Cit.* p. 164 who quotes from Ceylon Literary Register, 1893, p. 109.

described under No. 41 bearing crude Roman letters is possibly a Kandyan copy of one of these pieces as we find in the jumble of letters EGBV.

Capt. Robert Knox who was a captive in the Kandyan Kingdom between 1659 and 1679 and who was allowed much liberty in wandering about, has left us a most interesting account of the coins in use in the region. He says:<sup>53</sup>

"Of Money they have but three sorts that passeth for Coin in the King's Dominions. The one was Coined by the Portugals, the King's Arms on one side, and the Image of a Frier on the other, and by the Chingulayes called Tangom massa. The value of one is nine pence English, Poddi Tangom, or the small Tangom is half as much. There is another sort which all People by the King's Permission may and do make. The shape is like a fish-hook, they stamp what mark or impression on it they please. The Silver is purely fine beyond pieces of Eight. For if they suspect the goodness of the Plate it is the Custom to burn the Money in the fire red hot, and so put it in water; and if it be not then purely white, it is not Currant Money. The third sort of Money is the King's proper Coin, for none upon pain of Death may coin it. It is called a Ponnam, (probably the fanam). It is as small as a Spangle; Seventy five make a piece of Eight, or Spanish Dollar. But all sorts of Money is here very scarce; And they frequently buy and sell by exchanging Commodities."

We have already mentioned that this hoard contained the Portuguese coins and the larins, and that it was found in the region in which Knox was held captive. For us, the important part (of the testimony of Knox) is the statement regarding the

<sup>53</sup> Historical Relations of Ceylon, Glasgow, 1911, p. 156; see also Dickinson, Num. Chron. 1849, p. 86; Codrington p. 164.

private manufacture of the larins and the placing of arbitrary marks on them. This accounts for the several hundred different devices found, few of which have any indications whatever of governmental stamps. In fact no mention is made anywhere that the Sinhalese kings ever issued these coins, and outside of those struck by the Captain of Colombo, who found competent men to make them, the Portuguese and the Dutch did not make any officially. In other words those in use on the island were either brought over in the course of trade, or were made by local private artisans.

One hundred years later Fra Paolino da S. Bartolomeo (1776-1789) says:<sup>54</sup>

"The King of Candy has introduced in the island of Ceylon a kind of money, which consists of a piece of silver wire rolled up like a wax taper. When a person wishes to make a purchase he cuts off as much of this silver as is equal to the price of the article."

From the above, one might draw the conclusion that the King authorized the making of them, but he in all probability introduced their use only.

Thunberg,<sup>55</sup> who was in Ceylon about the same time gives a detailed account of the coins in use there, and states he was informed that the "Emperor of Candi" struck larins of various sizes and values, and that he bought one for twelve Dutch stuivers and another of a smaller size for nine, both

<sup>54</sup> *Voyages to the East Indies*, English Trans., 1800, p. 86 quoted from Codrington p. 164.

<sup>55</sup> *Travels in Europe, Africa, and Asia*. London 1795, Vol. IV, p. 210.



of fine silver. He probably was in error about the royal striking of larins. It is interesting to note, however, what he says about their being made in various sizes and values. None in the find appear to be other than whole larins, unless Nos. 85, 86 and 155 might be three-quarters larins. I personally have never seen or heard of any fractions, except for one in the American Numismatic Society's cabinet, which is without stamps and of small gauge wire and weighs  $56\frac{1}{2}$  grains. A half-larin should weigh 36 to 37 grains; and a three-quarter one  $54\frac{1}{2}$  grains. It is very doubtful if any such divisions were deliberately made. Mr. Biddell doubts it as well. He also informs me that he saw a small hoard of larins all apparently of light weight (those he weighed ran 54, 58,  $60\frac{1}{4}$ ,  $67\frac{1}{4}$  grains), which were found in a remote jungle village in Nuwarakalāwiya. He considered them either as a local effort, or as having been taken there by traders from more civilized regions where they had been rejected. In general appearance any of these could be taken for full larins. One would also conclude from Thunberg who seemed to have visited only the coast cities that they had ceased to circulate along the coast in the seventeen seventies.

The Dutch found the larin much in evidence when they occupied the country but it gradually disappeared as a circulating medium and became a money of account in the territories they occupied. Their rating was one-fifth of a rix-dollar of 48 heavy stuivers.<sup>56</sup>

<sup>56</sup> Codrington *Op. Cil.* p. 162.

In 1785 it was resolved to strike half-larins in the shape of small copper bars to be rated at  $4\frac{3}{4}$  Indian stuivers.<sup>57</sup>

They, however, were still current in the Kandyan country in the early part of the nineteenth century. Dr. John Davy<sup>58</sup> writes "the silver coin in circulation called a riddy or rheedy is worth about sevenpence English, and is equivalent to sixty-four Kandyan challies. Its form is singular; it resembles a fish hook, and is merely a piece of thick silver wire bent."

Today they are scarce throughout all of those regions where once they were so plentiful. Occasionally a small find comes to light and now and then a few drift into the bazaars. Where have the caravan-loads of them gone? Where have the chestfuls taken by the Mohammedan and European traders gone? What has become of the countless numbers once in Ceylon where elephants loaded down with them were captured? Gradually as they ceased to be current or in demand for purposes of trade, they were melted down on account of their fine grade of silver,<sup>59</sup> and the wire coin went into the round coin or into other wire, into jewelry and silver ornaments. Also in later days when they came into the hands of silversmiths and money changers they were not recognized as coins sought after and went their way into the crucible.

The dies used for striking larins varied. Probably

<sup>57</sup> Codrington *Op. Cit.* p. 125 and plate V, 129.

<sup>58</sup> Account of the Interior of Ceylon, 1821, p. 245.

<sup>59</sup> Pyrard, *Vide* p. 5, *infra*.

on the earlier larins, which were struck by the royal authority, dies for coins were employed. This was certainly the case in Hormuz, El Hasa and Persia. Some of the later Persian ones, as has been stated, were stamped with long narrow dies made for the purpose (see 306-308) as were the Maldivé larins (see plate IX-k, wrongly placed here under Persian). The Bijapur larins were made with the same kind of dies; others of Indian provenance likewise, but the dies not as narrow.

In Ceylon, since the larins were of private manufacture, every conceivable device for stamping was employed except dies for striking coins. Many were made from coins themselves acting as dies, as will be noticed on most of the first thirty-nine numbers and No. 309 in the catalogue. In most instances the dies were dies made for the purpose of striking larins, generally the size of the piece, sometimes a little larger. Occasionally the dies were considerably larger, such as shown in Nos. 46, 81, 117, 203, 217, 249 and 250, and were probably made for other purposes. In a few cases such as Nos. 59, 142, 148 and 149, small punches were used. In a very few instances such as Nos. 241 and 242 dies resembling coin dies were made. Naturally some of the dies were cut carefully and delicately, others roughly and crudely; some are in low and some in high relief. Certain pieces with crude shallow markings give every appearance that the dies were made by etching with acid, especially in the look of the background, and the peculiar appearance of the edges of

the raised parts. Nos. 144, 214, 230 and 288 to 291 are examples. I have studied them very carefully and feel convinced that they were made this way.

With such a large number of larins before one it has been possible to study how they were manufactured. Being made in large quantities for a great number of years by men familiar with metal working they would naturally be fabricated in the easiest and simplest manner possible. In fact it is surprising, considering that so many different people must have made them in so many different places, that more variations of manufacture do not appear.

Why should a long piece of wire doubled over at the middle be used so extensively as a piece of money? This question can be best answered if we consider a way of fashioning metal to produce easily pieces of a fairly uniform weight. All that the maker of a larin had to do was to determine what length of drawn wire of a given thickness would yield a certain weight, and consequently to cut the wire that length. According to the exactitude of the cutting would the weight be uniform.

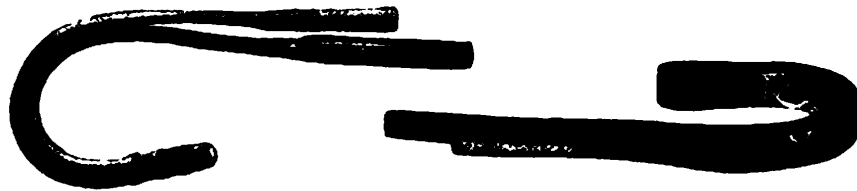
The planchets for small silver coins, such as the early Russian silver kopecks, and Persian and Bokharan silver pieces, have at times been made in this manner. It is said that in fairly recent years the Russian government asked the Bokhara mint to produce a large quantity of small silver coins and that with their meagre facilities the mint officials balked at the order unless they could first make wire and then pound out the short sections.

Various gauges of wire were used in the making of larins, each maker presumably having his own draw plates. The thickest piece in the hoard was about .125 inches (Plate I, 45) and the finest used was .085 inches (Plate I, 308). Consequently the pieces vary considerably in length, from two and one-half inches to five and three-sixteenth inches. The weights of these two pieces are 67 and  $73\frac{1}{2}$  grains respectively. It is also noticed that the same maker did not always use the same gauge wire, as pieces of the same die oftentimes vary in thickness. The majority of the pieces range between three and one-eighth and three and three-quarters inches in length before being doubled and bent.

The wire was cut with a chisel and not in as exact lengths as might be as the weight of the larins, as has been noted, varies several grains. The piece of wire was then doubled over at the middle, and while held firmly by tongs so that the two portions lay one on top of the other, the piece was more or less flattened on both sides by hammer blows from the fold or very near the fold to from a quarter to three-quarters of an inch from the cut ends. The blows were so moderated that the flattening gradually diminished leaving the ends the original diameter of the wire. This was done to present a larger surface for impressing the design. Only two or three specimens show flattening for the entire length. See Nos. 247 and 209, the latter shown also on Plate I.

With the wire thus prepared the piece was ready

for stamping. As the flattening process tended to harden the silver the pieces may or may not have been again softened by heating. When two dies were used the larins were probably struck as any coin is struck. When a single die was used for striking, the wire was apparently laid on a smooth surface and the die was held on top of the wire. When the same die was used to strike both sides two methods were employed. If the piece was doubled over before striking care was taken that the second impression did not obliterate the first impression on



the other side. The majority of the pieces, where a single die did double duty, were made in another manner. The wire before being folded was partially flattened, pains being taken not to touch the two ends and the middle part of the wire, because it would otherwise be more difficult to double the flattened wire which is harder. Also, it would have a tendency to spring apart and not lie together as closely. Of the total number of larins in the find, 819 pieces, only 21, about  $2\frac{1}{2}\%$ , showed the wire flattened at the middle before folding. I have dwelt on this fact especially as the only modern

counterfeit larins have this part flat.<sup>60</sup> An examination of the illustrations will at once show the difference. To return; the die is then stamped on the two flattened surfaces, the wire doubled over in the middle, and either with a hammer or with the same die used again, the piece is flattened down at the fold. Some of the larins with two different dies were probably made this way as well.

In regard to the pieces where coins were used as dies it would seem rather destructive to the coin, on account of the comparative softness of the metal, if the impression was made by a hammer blow. In all probability these were stamped by pressure under a lever. In fact many of the other pieces could have been thus made. With these and, in fact, any stamped from dies much larger than the larin, several could have been made at one time as we find many of the larins with impressions from various parts of the die.

The final stage is the curving or bending of the larins. Only those used in Ceylon are thus curved, those pieces made on the mainland and which did not reach Ceylon are straight (See Plate IX). All made in Ceylon, or coming to the Island were at once or soon curved.<sup>61</sup> This curve took various

<sup>60</sup> Lowsley, *Op. Cit.*, mentions a modern counterfeit. The only gold larins I have seen have been made from the modern die illustrated above.

<sup>61</sup> All of those in the find were curved, though certain Indian larins of the date-stone type (see plate IX a to e) were not curved on account of the difficulty involved. It is also a fact that some straight larins have been bent purposely as they sell better when called "fish-hook money."

forms as shown on Plate I. With the majority, curving was carefully done as if the larins were bent over a form. Many of those not made on the island or those apparently of older make, if one can judge by the wear, were simply twisted by hand into various shapes. Mr. Biddell informs me of a village tradition related to him that the larin was curved thus for secure concealment in the hair knot.

The bending naturally obscured one face of the larin so that stamping both sides was not as necessary as with the flat pieces from the mainland. Consequently we find roughly two-thirds of the strictly Sinhalese larins were struck on one side only, and with many of those struck on both sides the same die was used. Those made in imitation of Persian larins were more apt to be struck on both sides.

For the most part the sides are untouched and show the natural roundness of the wire. Occasionally one finds a piece with flattened sides (see Plate I, No. 62).

As will be noticed on Plate I, most pieces show one or more gashes on the side. These test cuts, for want of a better name, are apparently made by a sharp-edged chisel and sometimes cut into the wire over half its thickness. All but 73 in the hoard had these cuts, over 91%. These marks are peculiar to the Sinhalese pieces as I have never seen one of these test cuts on a straight larin. These cuts number from one to seven as a rule and are mostly on one side, about equally distributed at the fold or



the ends and generally at both places. I am at a loss as to their purpose. If they were made to determine the fineness of the silver, as is the general opinion, they failed on the three plated larins in the find, or else, in this case, they were put on at the time to add to the deception, as in China false chop marks were put on Spanish and Mexican dollars that had been filled with base metal.

On a large per cent of the pieces where several cuts are on the same piece, they appear to have been made at the same time. Also, with hardly an exception they are made on certain parts of the piece only, either near the fold or at the ends. The cuts apparently had no relation to the weights. Underweight pieces had a varying number of cuts, as did also overweight pieces. Pieces from the same die do not show the same number of test cuts and occasionally show none at all. Both unworn and worn pieces showed varying numbers of chisel marks as did those made on the Island and those brought from the mainland. They apparently were not made to facilitate breaking into sections as the cuts very rarely were deep enough and also the cut or cuts near the fold would not divide the piece into equal halves. No larin in the find seemed to have been broken off at any of the end cuts, although two had been broken at one of the cuts near the fold by twisting. One might make the conclusion that in early days the cuts were made to test the silver; later on especially with the Kandyan larins they were deliberately done as a finishing off process, or as a fictitious 'hall-mark.'

Sixteen pieces have counterstamps on them (see Plate IX), all at the end of one or both prongs. They fall into two classes: those countermarked with the same die that stamped the larin itself, and probably done at the time the larin was made; and those stamped with a special mark punched in at a later time by someone else, possibly as an endorsement. No group with the same stamp had more than one piece counterstamped and the greatest number of specimens showing the same mark is three. They do not appear to be official stamps and are probably, especially those of the second group, private schroff marks. One, No. 242, is stamped on the truncation with a very minute punch.

Studying the weights of these larins, the conclusion is reached, independent of other evidence, that they were a trade coin and probably in large transactions went by weight. The average of those in the hoard is 71.368 gr. (4,625 grms.). This or the truer weight of 73.7 gr. conforms to no silver coin at the time and in fact to hardly any silver coin issued in the Mohammedan world, but it does conform to one of their chief units for weighing precious metals and other small articles. This was the miskal (spelled methkal, metqal, etc.), the weight of which, especially in Persia, was between 71 and 74 grains according to locality. Poole in the British Museum Catalogue, Coins of the Shahs of Persia, gives the weight as 71.18 gr. using Hanway's tables. The weight at Teheran was 74.1 gr., at Basra 72 gr. and at Mocha

71.7 gr.<sup>62</sup> Individual pieces in the find differed considerably in weight, even pieces struck from the same die showed a variation of several grains. The lighter pieces show no apparent signs of being clipped. The lightest larin weighed but 50½ gr. but an analysis showed it was composed of half silver and half copper (see No. 155). Another weighed about 51 grains but its appearance was entirely different from the other larins (see No. 86). Very few weighed less than 60 grains. The majority of the pieces weighed from 64 to 76 grains, the heaviest weighing 80½ grains.

Codrington,<sup>63</sup> quoting Lembranças, Nunes and Aragão, says, "Its weight was at one time 45 to the Portuguese mark or 78.7 grains Troy; by 1607, however, it is given as 6 to the ounce, *i. e.*, 48 to the mark or 73.7 grains, and this is the usual weight."

The following frequency table summarizes the weights of 550 unworn pieces and shows that the

<sup>62</sup> The miskal varied in different ages and localities from about 67.5 gr. to 90.7 gr. According to Arabic writers the earliest miskal of the Mohammedans was 64.8 gr., one called the legal miskal was 67.5 gr., while others varied in weight from 68.1 to 74.9 gr. These figures have been taken from "*Materiaux pour servir à l'histoire de la numismatique et de la métrologie musulmanes*," by M. H. Sauvage, pt. I, pp. 35 ff., pt. II, pp. 275 ff., 296 ff. A summary of the first part was given by Stanley Lane-Poole in *Arab Historians on Mohammadan Numismatics*. Other references are *Loi de la numismatique musulmane*, by C. Mauss, p. 5; *Essai sur les systèmes métriques et monétaires des anciens peuples*, by V. V. Queipo, Vol. II, pp. 231 and 446; *Monnaies, poids, mesures et usages commerciaux de tous les états du monde*, Lemaire, éditeur, Havre 1875; British Museum Catalogue, *Coins of the Shahs of Persia*, by R. S. Poole, *Introd.* p. lxi.

<sup>63</sup> *Op. Cit.* p. 162.

intention was to make the larin from 73 to 74 grains.

Under 60 grains		6 specimens	
From 60-64	"	13	"
" 64-66	"	27	"
" 66-67	"	17	"
" 67-68	"	19	"
" 68-69	"	24	"
" 69-70	"	35	"
" 70-71	"	37	"
" 71-72	"	56	"
" 72-73	"	68	"
" 73-74	"	131	"
" 74-75	"	72	"
" 75-76	"	32	"
76 and over		13	"

Checking up on these weights we find as follows: Against the earlier weight of 78.7, eight Persian larins in the Society's cabinet, which might fall into the class of the earlier larins show an average weight of 75.375 grains. This is a little light, but the Portuguese may have rated the larin too high. As for the other weight of 73.7 grains, the weights as deduced from the hoard tally very closely. Although the average weight of all whole specimens, good, bad and indifferent averaged only 71.368 grains, the figures arrived at from our table of 550 of the better specimens show that the private makers (for in Ceylon they were not made by the native authorities, and undoubtedly were not supervised by governmental inspection) tried to maintain a certain fixed weight standard. This makes a good showing for the integrity of the larin makers.

While on the subject of weights it may be of inter-

est to note the weight of some of the other larins in the American Numismatic Society's collection:

	Av. wt.
5 Bijapur larins with "Ali Adel"	73.5 gr.
6 Indian larins, other types	68.5 "
8 Persian larins	75.375 "
13 base Nejd larins	50. "

In the cataloguing of the pieces I have endeavored to arrange them in groups. Those bearing Devanagari or Hindi letters struck from Sinhalese coins comprise the first group (Nos. 1-19) and number about one-seventh of the whole. These pieces were not unknown but simply had not been recognized and deciphered. These have been or will be taken up more thoroughly in detail in other portions of this article. The "*setu*" piece (Nos. 20 and 21), with the Tamil legend stamped from a coin, was probably made by the same person that made the other larins. Twelve pieces occur, some incuse some in relief (Nos. 22-26), with some mediaeval writing I have been unable to decipher, nor have I up to date been successful in finding any one able to interpret these. Some letters resemble Nagari, two or three might be Tamil and one or two cursive contemporary Sinhalese. These inscriptions are in all probability "imitative" and the product of Kandyan workmen.

The five pieces bearing types of Portuguese coins (Nos. 27-31) and the fifteen of Dutch influence (Nos. 32-39) were undoubtedly struck by native makers simply making use of whatever material

was at hand. None of these as far as I can glean have been published. A piece with the word FRI-SIAE (Nos. 32-33) was sold to a Russian collector some years ago.

A large proportion, nearly one third of the hoard (Nos. 43-162), have what appear to be designs of sorts, sometimes apparently meaningless, especially if only a small part shows. Some are, doubtless, simply crude markings without reason, sufficient to differentiate one maker's larins from another's. Many of the designs are undoubtedly crude attempts at letters or inscriptions. I have tried to distinguish those that appear to be ignorant copies of Persian larins, of which undoubtedly there were many examples on the Island to work from. These imitations (Nos. 163-294) amounting to about one-quarter of the find present more varieties than the previous group but for the most part are not as interesting. Many that have been given separate numbers are undoubtedly from different parts of the same die but have not sufficient markings in common to tie together. The same can be said about those bearing designs; many throughout the groups were so poorly struck, were so worn or obliterated that matching together these designs was oftentimes a most difficult task. Six pieces only bore no marks whatsoever on them, which considering their private manufacture is most unusual. They were probably accidentally unstamped as they looked as if they were made by different parties.

The second section of larins (Nos. 296–319) were picked out as being of continental manufacture; nearly all were of Persian origin, making a total of about 160. These showed clearly that they were stamped from dies used to strike Persian coins. Unfortunately only eleven showed enough of the significant part of the inscription to warrant identification, while 128 had to be lumped together as having insufficient identifying inscription. The wear on these showed clearly that they were older larins that had done service for many years. A noticeable fact is that none showed the mill-sail pattern of some of the early Persian coins, which have been found on larins not from this find. A small sub-class in this group were of undoubted Persian manufacture but stamped from dies made to strike larins (Nos. 306–308). Although the last group (Nos. 309–319) may or may not have been made on the Island, the first five probably were. Numbers 314–317 are most interesting and have inscriptions in part similar to the Indian larins. In the entire find only 23 were too poor to classify.

In going through this large assemblage of larins I was not only much impressed by the great variety of types but that nearly every piece in the hoard was different from any that I had seen before (probably about one hundred fifty). Approximately two hundred and eighty different designs, not counting the incuse and Persian pieces, are represented in this hoard, and from the still different designs of the possibly fifty Sinhalese pieces seen elsewhere, I am

firmly convinced that if specimens of all of the different varieties ever made in Ceylon could be again assembled the markings and designs on these pieces found at Gampola would be but a small fraction of the various devices used by the makers of larins.

I wish to acknowledge both my own and the Society's indebtedness to Dr. Casey A. Wood, the former owner of the find, through whose good counsel and encouragement the present article was consummated, and through whose generosity the largest part and the first selection of the Gampola hoard is now in the cabinet of The American Numismatic Society. I wish also to recognize the services rendered by Mr. John Still who was the first to envisage the importance of the hoard and who was largely instrumental in gathering it together. I also wish to acknowledge the use of many of his notes in his brief report made to Dr. Wood. To Prof. William Campbell I am indebted for the analysis of several of the pieces, and I wish also to compliment Mr. Alfred L. Howes for his careful drawings of many of the larins. I wish to express my appreciation to Mr. W. H. Biddell for much valuable help and kindly comments, as well as for the careful reading of the manuscript, and to Mr. H. W. Codrington I desire to express my gratitude for the valuable assistance given through his monumental work, Ceylon Coins and Currency.



## EXPLANATION OF PLATES

Plate I shows examples of the larins viewed from the side. These were especially picked out to show the various ways they had been bent and curved. The varying thicknesses of wire can be easily seen, also the test cuts.

Plates II to IX (first half) show all the different types catalogued, concluding with drawings of the counterstamps.

As each variety is illustrated and shown in numerical order the plate number is not given in the text. If for any reason a piece is illustrated more than once, the additional plate number is given. When both obverse and reverse are shown, the second illustration over the number is the reverse. When the larins are struck from coins used as dies the type coins are shown. In the case of the Sinhalese coins, the intaglio or reversed impression from the whole coin which was used for the die of the larin is illustrated, as the larin may have been struck from any part of the piece. Direct photographs have been used when practicable, but when the design is on the curve, or only a part of the design shows on any one piece, drawings have been made. As the illustrations are primarily to show the evidence on each larin, the entire larin is not always shown, especially in the drawings.

None of the larins on the second half of Plate IX were in the find, but are from specimens in The American Numismatic Society's cabinet. These are shown solely to illustrate other forms used elsewhere.

All have been folded over once and have not been curved. The Indian forms (a-h) are short and thick and made of heavy wire. They were made and used along the west coast of India, especially around Goa and by the Adil Shahi kings of Bijapur in the seventeenth century. The Bijapur larins (f, g, h) have been described by Wilson<sup>63</sup> and Taylor.<sup>64</sup>

The Persian forms (i, j, l, m, n, o) are much longer and made of thinner wire. A most unusual piece (j) is made of very thick wire, (o) is a curiously bent piece. The Maldive larin (k) is of slightly different form. Through error it was placed under the Persian larins. The Arabian larins (q-r) were made at El-Hasa and are of very base metal, in fact, nearly wholly copper. They are called Toweeleh (long) and were current up to recent times. The Javanese larin (p) is found in copper and pewter and is very rare. It was made at Batavia in 1658 or 1660.<sup>65</sup>

Plate X illustrates the Portuguese coins in the hoard.

The outside of the larin will be called the obverse, and the inside the reverse. The end doubled over will be termed the fold, and the other two ends the prongs.

Following the description of the piece the number given in parentheses, thus (2), indicates the number of pieces of that type in the find. The weight of the piece follows and is given in grains.

<sup>63</sup> Prof. H. H. Wilson, *Num. Chron.*, Vol. XVI, 1854, p. 179.

<sup>64</sup> George P. Taylor. *J. A. S. B.*, Vol. VI, N. S. p. 687.

<sup>65</sup> Sir John Bucknill in *The Coins of the Dutch East Indies*, p. 55, says 1660; Codrington, *Op. Cit.* p. 110, says 1658.

## CATALOGUE

### I. LARINS MADE IN CEYLON

TYPES DERIVED FROM COINS OF THE SINHALESE  
SOVEREIGNS OF THE THIRTEENTH CENTURY

SÁHASA MALLA (1200-1202)

#### *In Relief*

1. A vertical section showing arm of figure, and *ma ha ma* of the Devanagari inscription *Srī mat Sá hasa Malla*.

*Rev.* Same as obverse. (3) 72.5, 73.5, 74.5 gr.

Two different dies used and both illustrated. The third specimen lightly and double struck.

This type with impression in relief was noted by Mr. John Still in his preliminary report on the find as possibly being of the utmost importance. It *apparently* was struck from dies used in making the coins of Sahasa Malla in 1200-1202 and if this were so, would antedate by about three hundred years the approximate date for the making of the first larins. Knowing that it is most unusual to find coins struck four and a half centuries earlier than the majority of the pieces in a hoard, I have given these most careful study under a powerful glass. I have come to the conclusion that they were made at about the same time as the other pieces in the find. They also look no different than the general run of the hoard and they show no great signs of wear. Although the two best pieces show they were struck from different dies I am convinced that these dies were made for the purpose of striking larins and were not the dies for the coins of Sahasa Malla. The cutting of the characters is indecisive and has not the same style as the lettering on the earlier copper coins. The large border pellets on the coins are not pellets at all on the larins but irregular indefinite objects. Also on one of the dies the last character *ma* is incorrectly made (see 1a) and has a curved terminal sweep enclosing the char-

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acter where the border pellets should be. Again on the other die (1 b) at the top there shows on each side the raised confining border of the die. I also think that if the larin were struck at the time of Sahasa Malla both obverse and reverse dies would have been used and not one die used twice.

### *Intaglio impressions made from bronze coins used as dies*

2. Parts of the inscription *Srī mat Sá hasa Malla* and parts of the figure in intaglio and consequently reversed.

*Rev.* Blank. (49) 64–76 gr. average 71 gr.

One specimen was bent so the outside was blank and the inside inscribed and four show the impression repeated. Four pieces are counterstamped at one of the ends by simply using the same coin as a die, and one specimen is a forgery made of drawn copper wire silver-plated, and weighs 61½ gr.

3. Inscribed as No. 2.

*Rev.* Same as on obverse. (10) Av. wt. 71 gr.

4. Inscribed as No. 2.

*Rev.* Design in relief. (1) 72 gr.

This piece is interesting as it shows that the person using the copper massas as dies had other dies that he used for stamping larins. Other reverse dies are known.

### DHARMASOKA (1208–1209)

#### *Intaglio impressions made from bronze coins*

5. Parts of the inscription *Srī Dha rmmá soka Deva* intaglio and reversed.

*Rev.* Blank. (6) 65½ (2), 76, 71½, 74½ gr.

Four of the pieces show the inscription horizontal and one vertical; one is broken.

LÍLÁVATÍ (1197-1200, 1209-1210, 1211-1212 A. D.)

*Intaglio impressions made from bronze coins*

6. Parts of the inscription *Srí Rája Lílá vatí* intaglio and reversed.

Rev. Blank. (7) 65-73½ gr. Av. wt. 71 gr.

One specimen was doubled over after being flattened; see introduction page .

7. Inscribed as No. 6.

Rev. Design in relief similar to No. 90.

(2) 70, 74 gr.

PARÁKRAMA BÁHU II (1236-1271 A. D.)

*Intaglio impressions made from bronze coins*

8. Parts of the inscription *Srí Pará krama Báhu* in intaglio and reversed.

Rev. Blank. (10) 60-74 gr. Av. wt. 70½ gr.

9. Inscribed as No. 8.

Rev. Same as obverse. (5) Av. wt. 73 gr.

One specimen is counterstamped on both prongs (see Pl. IX).

10. Inscribed as No. 8.

Rev. Inscribed as No. 2. (The Sahasa Malla imprint.) (1) 71½ gr.

This piece, with the names of Parakrama and Sahasa Malla is good evidence that the same person made these larins with the intaglio impressions. It also furnished evidence that these pieces were not made in the thirteenth century.

11. Inscribed as No. 8.

Rev. Design in relief. (1) 72 gr.

12. Inscribed as No. 8.

Rev. Design in relief. See No. 258. (1) 68½ gr.

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VIJAYA BÁHU IV (1271-1273 A. D.)

*Intaglio impressions made from bronze coins*

13. Parts of the inscription *Srī Vija ya Báhu* in intaglio and reversed.

Rev. Blank. (3) Av. wt.  $71\frac{1}{2}$  gr.

14. Inscribed as No. 13.

Rev. Same as obverse. (2)  $73\frac{1}{2}$  gr.

BHUVANEKA BÁHU I (1273-1284 A. D.)

*Intaglio impressions made from bronze coins*

15. Parts of the inscription, *Srī Bhuva naika Báhu*, in intaglio and reversed.

Rev. Blank. (2)  $72\frac{1}{2}$ , 74 gr.

16. Inscribed as No. 15.

Rev. Same as obverse. (5) 63,  $73\frac{1}{2}$  (4) gr.

17. Larins struck from the standing-figure side of the coin.

Rev. Blank. (2) 73, 75 gr. Pl. II.

These two pieces are the only ones of the whole series showing the uninscribed side of the coin used as a die. It seems to have been the intention to have some part of an inscription show on the larins.

18. Balance of larins struck from copper massas showing chiefly the head and figure of the king or not enough of the inscription to determine the ruler's name.

(35) Av. wt. 73 gr.

Twenty-three pieces were struck on one side only and ten on both sides, three of which were doubled over after being flattened.

LARINS STRUCK FROM COIN OF  
UNDETERMINED KING

**19.** Second column of a two line vertical inscription repeated several times. The two characters showing, apparently read *ja* and *ya* (or possibly *ta*).

*Rev.* Blank. (2) 72 gr.

These pieces apparently were struck from coins as the border dots show on one. No coins are known to match these characters and no ruler in the published lists of kings seems to fit. One piece is counterstamped probably by a coin.

ÁRYA CAKRAVARTIS OF JAFFNA (c. Thirteenth  
Century)

*Impressed from bronze "Setu" coins<sup>66</sup>*

**20.** The Tamil word *Setu* in intaglio and consequently reversed.

*Rev.* Same as on obverse but twice stamped. (1) 69 gr.

Codrington Pl. IV, 91. This larin was flattened before being doubled.

**21.** Design in relief.

*Rev.* In intaglio, the upper part of the obverse of the above coin showing head and ornament in front. (1) 74½ gr.

MISCELLANEOUS

**22.** Peculiar intaglio mark that may be a repeated letter.

<sup>66</sup> For further information about these coins see *Ceylon Coins and Currency* by H. W. Codrington. Colombo, 1924. pp. 74 ff. and Pl. IV, No. 91.

48 THE GAMPOLA LARIN HOARD

*Rev.* On one larin same as obverse, on the other larin blank. (2) 62, 68 gr.

Both of the pieces were folded over after being flattened.

**23.** Lettering not deciphered; in fine intaglio lines covering most of the larin. This is repeated several times and overlaps in places.

*Rev.* Same (1) 73 gr.

**24.** In relief, undeciphered inscription.

*Rev.* Blank (1) 74½ gr.

**25.** Very similar inscription but more crudely done.

*Rev.* Blank. (7) Av. wt. 73 gr.

All of these are bent as shown on Pl. I, 25.

**26.** Similar inscription in relief, cut in about the same style as No. 24.

*Rev.* Blank. (1) 66 gr.

TYPES DERIVED FROM PORTUGUESE COINS

**27.** In intaglio; portion of the obverse of a silver tanga of the Malacca type showing cross section of arms and the letter M.

*Rev.* Blank. (1) 73 gr. For coin see Pl. X, 336.

Codrington p. 103, Grogan Sale 1313-1314, Aragão Pl. II, 8.

**28.** In intaglio five parallel lines being a cross section of the gridiron on the reverse of the silver "Gridiron" type tanga, showing at each side parts of the letters S L and a linear circle enclosed by two beaded circles.

*Rev.* Same. (1) 71 gr. For coin, see Pl. X, 334.

Codrington p. 100, No. 114.



**29.** Intaglio impression of part of an armillary sphere, struck three times from a coin, as the linear and dotted border shows.

*Rev.* Same as obverse, struck three times.

(1) 69 gr.

This piece was doubled over after being struck. I have been unable to identify the coin used, it may possibly be a coin similar to Codrington's Plate V, 116.

**30.** In relief, design in thin even lines, resembling somewhat the reverse of No. 91.

*Rev.* Intaglio impression of part of an armillary sphere with dot line and dot border, double-struck similar to No. 29.

(1) 71 gr.

**31.** Intaglio impressions of what appear to be armillary spheres struck several times.

*Rev.* Intaglio A with part of another letter, above a line, the whole stamped twice.

(1) 73 gr.

I have been unable to identify the source from which this was made.

#### TYPES DERIVED FROM DUTCH COINS

**32.** Intaglio impression reading ∞ FRISIÆ ∞ backwards.

*Rev.* Same as obverse.

(1) 76 gr.

**33.** Same as 32.

*Rev.* Blank

(3) 68, 69, 73 gr.

These larins were struck from seventeenth century copper duits of West Frisia (Verkade Pl. 75, 6), and the maker very carefully impressed only the words of the place name; two have the word FRISIÆ and one the word WEST.

**34.** Intaglio date backwards 1645.

*Rev.* Blank.

(2) 71½, 73 gr.

The last figure of the date is somewhat indistinct on both pieces but it is undoubtedly a 5. The coin used was a duit of the wreath type, the same as above but not necessarily of West Frisia.

**35.** Part of a curved border; legend in intaglio badly jumbled, but an N can be distinguished.

*Rev.* In intaglio the right side of a shield, showing eagle's wings and outside ornaments, which was stamped from a schilling or 4 escalin silver coin of Nimeguen of the 1601-4 issue.

(Verkade Pl. 23.2).

(1) 64½ gr.

**36.** In intaglio part of the word ANNO as on the obverse of the ½ stuiver of 1644 of Batavia<sup>67</sup> (Verkade Pl. 200, 5, Netscher and Van der Chijs 27), or possibly the rare large silver 48 stuivers of 1645 (Verkade Pl. 200, 2, Netscher and Van der Chijs 17).

*Rev.* Same.

(2) 71½, 74½ gr.

**37.** Same as No. 36.

*Rev.* Blank.

(2) 67, 70½ gr.

The striker of these pieces was careful to use that part of the coin that had the word ANNO. He must have been a native unacquainted with the language or he would have picked out the more significant word BATAVIA.

**38.** In intaglio, part of the middle line inscription (Sultan?) as on the reverse of the copper 1 or 2 Kashas piece of Paliakate (Neumann 20384-6, Fonrobert 2799-2801, Grogan 522-526).

*Rev.* Blank.

(1) 67 gr.

Paliakate or Pulicat was the first Dutch possession on the Coromandel Coast and their first mint was estab-

<sup>67</sup> These coins were for use in Banda, Malacca and Ceylon. Codrington, *Ceylon Coins and Currency*, p. 109.

lished at that place. According to Codrington copper coins of Paliakate have been found in Ceylon.

**39.** Intaglio impression of part of the VOC monogram on the obverse of probably the Paliakate coin described above. This has been stamped twice and is not very clear.

*Rev.* Traces of the VOC mark stamped over what was probably a Persian inscription. (1) 73 gr.

The fact that this stamp is struck over what was probably a Persian larin might lead one to the conclusion that this was officially done at Paliakate to legitimize the foreign larins brought in there. However, it would seem reasonable that if this was done officially the piece would be stamped from dies and not from a coin.

**40.** In raised letters  $\overset{V}{S}$ : above the V what may be a 6; below, two lines and some indefinite marks. To the right of the V is what may be an I, and to the right of the S, a small t, thus making  $\overset{VI}{St}$ .<sup>68</sup>

*Rev.* Same as obverse. (2) 70, 71 gr.

The inscription on this larin would seem to indicate its value at 5 or 6 stuivers. This is impossible as nowhere in Ceylon was the larin rated at these figures. In 1640 the Dutch rated the larin at 10 stuivers and in 1655, 1661 and 1662 it was rated at the same. Later on the ratings were at 12 stuivers and the same ratio seems to hold good in the Kandyan country where the pieces were buried.<sup>69</sup> I am unable to hazard any guess as to the meaning of these letters.

**41.** Sequence of crude Roman (?) letters in relief, apparently repeated.

*Rev.* Same as obverse. (1) 67½ gr.

See introduction p. 23.

<sup>68</sup> Many of the drawings (especially Nos. 46, 81 etc.) are much wider than the actual larin as the design is taken from several specimens.

<sup>69</sup> Codrington, pp. 98, 110, 175.

- 42.** Sequence of crude marks resembling letters.  
*Rev.* Same. (1) 69 gr.

## DESIGNS

*All in Relief Unless Otherwise Stated*

- 43.** In bold relief, a design which may possibly be a word of three characters. The die was evidently made for the purpose of stamping larins.

*Rev.* Blank. (30) 66–76 gr. Av. wt. 73.2 gr.

These pieces were all carefully struck at the fold with the same part of the die. The other end of the die is seldom struck up. One die only was used and all the larins are made from heavy wire. None show signs of wear and on account of the large number of them it would seem as if these were made at about the time of the burial of the hoard, and probably the owner and striker of these were the same.

- 44.** Very similar in die-cutting and workmanship to No. 43.

*Rev.* Blank. (2) 73, 75½ gr.

- 45.** Design boldly but not so well cut.

*Rev.* Blank. (21) 72–74½ gr. Av. wt. 73.3 gr.

These pieces present the same general appearance as Nos. 43 and 44, but were not so carefully struck. The imprint on twelve pieces runs one way, and on nine the other way. None show signs of wear. These, as well as those under 43 and 44, are of a very whitish color, as if the pieces had been pickled after striking.

- 46.** Crudely-cut, bold design, apparently on a large round die of which very little shows on any one larin.

*Rev.* Blank. (4) 70, 72, 74, 75 gr.

This drawing was made from several specimens.

**47.** Design in flat low relief.

*Rev.* Blank. (4) 71½, 72, 73 (2).

**48.** Very similar in style and die-cutting.

*Rev.* Blank. (1) 71½ gr.

**49.** Crudely cut design, the die evidently made to stamp larins.

*Rev.* Blank. (7) Av. wt. 72½ gr.

**50.** Similar to No. 49, the dies more crudely made.

*Rev.* Blank. (4) Av. wt. 69½ gr.

**51.** Crude shallow markings nearly obliterated.

*Rev.* Similar to No. 50. (1) 67 gr.

Counterstamped. Pl. IX.

**52.** Design similar, dies cut much sharper.

*Rev.* Blank. (3) 71½, 73½, 75 gr.

**53.** Similar to No. 52 but dies less sharply cut.

*Rev.* Blank. (7) Av. wt. 73 gr.

**54.** Similar but the figures in the pattern are smaller.

*Rev.* Blank. (11) 65-77 gr. Av. wt. 70 gr.

Many of these are very poorly and lightly struck and show signs of wear; a few pieces seem to show that the same design was repeated on the reverse.

**55.** Design of fine indefinite lines.

*Rev.* Same, some specimens show hardly any of the design. (7) Av. wt. 71 gr.

One counterstamped on end of each prong. Pl. IX.

**56.** Character struck three times.

*Rev.* Same, stamped twice. (1) 75 gr.

**57.** Similar character stamped twice.

*Rev.* Same, stamped twice. (1) 69 gr.

## 54 THE GAMPOLA LARIN HOARD

The wire used on this larin is of much thinner gauge than usual. See Pl. I.

**58.** Similar, stamped once.

*Rev.* Blank. (1) 74½ gr.

The designs on the above larins Nos. 49-58 present a Chinese appearance, and one can easily see a resemblance to certain Chinese characters such as *ta*, *fu* and *yuan*. As Chinese cash were not uncommon at that time these probably furnished an inspiration to the Kandyan die cutters for new designs.

**59.** Relief design in rectangular incuse, stamped twice.

*Rev.* Blank. (1) 75 gr.

**60.** Well cut design, probably part of a much wider die.

*Rev.* Blank. (2) 65½, 76 gr.

**61.** Similar design, in low flat relief.

*Rev.* Blank. (1) 71½ gr.

**62.** Roughly cut linear design.

*Rev.* Same. (1) 62½ gr.

This piece was stamped and flattened before folding. The sides also have been flattened. See Pl. I.

**63.** Similar design.

*Rev.* Blank. (1) 73½ gr.

**64.** Similar design.

*Rev.* Blank. (1) 73 gr.

Counterstamped. Pl. IX.

**65.** Similar design, boldly cut.

*Rev.* Blank. (2) 73, 74 gr.

**66.** Very similar to No. 65 but poorly cut.

*Rev.* Blank. (2) 67½, 75½ gr.

**67.** Design resembling somewhat No. 43 but die poorly cut.

*Rev.* Blank. (3) 73 (2), 74 gr.

**68.** Indefinite pattern in faint shallow lines.

*Rev.* Blank. (1) 69½ gr.

**69.** Intricate, fine-line pattern.

*Rev.* Blank. (1) 71½ gr.

Both prongs counterstamped. Pl. IX.

**70.** Confused design from possibly a circular die.

*Rev.* Blank. (2) 70, 72½ gr.

**71.** Whorl pattern, poor workmanship.

*Rev.* Blank. (1) 68 gr.

**72.** Fine-line intricate design.

*Rev.* Blank. (1) 74 gr.

**73.** Very similar to No. 72.

*Rev.* Similar. (1) 73½ gr.

**74.** Similar but the design is not as long and the relief is lower. Stamped three times.

*Rev.* Same as obverse. (1) 77½ gr.

**75.** Similar in design and cutting, stamped several times.

*Rev.* Same. (2) 66½, 68½ gr.

The sides on both of these larins have been flattened.

**76.** Fragmentary design in bold relief.

*Rev.* Blank. (1) 69 gr.

**77.** Design of curved lines and dots.

*Rev.* Blank. (1) 72 gr.

**78.** Similar design without dots.

*Rev.* Blank. (1) 65 gr.

**79.** Similar.

*Rev.* Blank. (3) 61½, 64½, 71 gr.

56 THE GAMPOLA LARIN HOARD

All of these pieces were folded after being flattened.

**80.** Fine-line design struck from much larger die.

*Rev.* Blank. (2) 70½, 72½ gr.

**81.** Similar but coarser design struck from much larger die.

*Rev.* Similar but not from same die.

(9) Av. wt. 72.8 gr.

The resemblance of this design to the "Bull and Horseman" common throughout northwestern India and Afghanistan is marked. Coins of this type were issued by several dynasties from the ninth to the seventeenth centuries. The specimen shown is typical of the type and was issued by Chahada Deva of Narwar in the thirteenth century.

**82.** Same as No. 81.

*Rev.* Blank. (1) 73½ gr.

**83.** Same as reverse of No. 81.

*Rev.* Blank. (3) 72½, 73½ (2) gr.

Only a small part of the design appears on any one larin of Nos. 81, 82, 83.

**84.** Similar.

*Rev.* Similar but more angular lines. (1) 74 gr.

**85.** Small portion of a design stamped close to the fold.

*Rev.* Same. (2) 53½ (and 1 broken).

**86.** Same as No. 85.

*Rev.* Blank. (1) 51 gr.

The above three larins are next to the lightest ones in the find, about twenty grains below normal, and present an entirely different appearance. The wire is apparently not drawn but hammered out; except at the two ends the metal has been pounded very thin and the sides have been flattened. See No. 155. See Pl. I.

**87.** Design of perpendicular and horizontal lines.

*Rev.* Blank. (1) 73 gr.



**88.** Design that may have been suggested from an Arabic inscription.

*Rev.* Same. (1) 73½ gr.

Thin gauge wire used.

**89.** Similar.

*Rev.* Blank. (1) 73½ gr.

**90.** Similar but coarser and from a larger die.

*Rev.* Same. (1) 70½ gr.

**91.** Similar, showing only the fragment of the die.

*Rev.* Similar to obverse but probably from another die. (1) 66 gr.

**92.** Very similar.

*Rev.* Blank. (1) 74 gr.

**93.** Very similar.

*Rev.* Crude indefinite markings. (1) 74½ gr.

**94.** Same as reverse above.

*Rev.* Blank. (1) 73½ gr.

**95.** Similar.

*Rev.* Same. (4) 68 (2), 71½, 74½ gr.

These pieces are all poorly struck and one is counter-stamped on one prong on one side and on the other side by apparently the die used to strike the larin itself.

**96.** Design not unlike No. 77, but finer.

*Rev.* Same. (1) 72 gr.

**97.** Similar design.

*Rev.* Similar. (1) 71 gr.

**98.** Small part of larger design.

*Rev.* Similar. (1) 68 gr.

**99.** Crude markings, part of larger design.

*Rev.* Blank. (1) 76 gr.

**100.** Angular markings, part of larger design.

*Rev.* Blank. (1) 67½ gr.

58 THE GAMPOLA LARIN HOARD

- 101.** Design in rectangular frame.  
*Rev.* Blank. (1) 71½ gr.
- 102.** Similar but coarser.  
*Rev.* Blank. (1) 66½ gr.
- 103.** Similar but from a much larger die.  
*Rev.* Blank. (2) 66, 76½ gr.
- 104.** Similar.  
*Rev.* Blank. (1) 69½ gr.  
 This piece was flattened before being doubled.
- 105.** Similar.  
*Rev.* Same. (1) 60 gr.
- 106.** Design of crudely cut curves and dots.  
*Rev.* Same. (1) 66 gr.
- 107.** Design of faint angular lines.  
*Rev.* Similar but resembling in workmanship  
 No. 88. (5) 64½, 66½, 69½, 72½, 73 gr.
- 108.** Same as No. 107.  
*Rev.* Coarse angular design. (3) 73 (2), 73½ gr.
- 109.** Same as No. 107.  
*Rev.* Similar to obverse but a little bolder in  
 execution. (4) 70½, 71½, 72½, 74 gr.
- 110.** Similar to No. 107 but die boldly cut.  
*Rev.* Blank. (2) 68½, 69 gr.
- 111.** Similar.  
*Rev.* Blank. (1) 73½ gr.
- 112.** Conventional, running design, broadly cut.  
*Rev.* Blank. (2) 69½, 70½ gr.
- 113.** Similar.  
*Rev.* Same as obverse. (1) 78 gr.
- 114.** Similar but finer.  
*Rev.* Blank. (1) 72 gr.

**115.** Clear-cut design, only a small part showing.

*Rev.* Same. (2) 68, 72 gr.

**116.** Similar.

*Rev.* Possibly another part of the same design.  
(1) 73½ gr.

**117.** Running design on each side of a straight line; struck from a much larger die.

*Rev.* Blank. (2) 70, 73 gr.

**118.** Similar but more elaborate.

*Rev.* Blank. (4) 68, 73 (3) gr.

One of the heavier pieces counterstamped. Pl. IX.

**119.** Repeated pattern, from a much larger die.

*Rev.* Blank. (1) 71 gr.

**120.** Interlaced pattern.

*Rev.* Same (1) 74 gr.

**121.** Running vine-like design, the die evidently made for stamping larins.

*Rev.* Blank. (5) 64½, 65, 66½, 69 gr.

One specimen is of copper silver-plated and apparently from the same die, its weight including a heavy coating of corrosion is 61 gr. All the pieces are of light weight, one is counterstamped on one of the prongs showing part of the same die.

**122.** Less elaborate curved-line pattern.

• *Rev.* Faint traces of the same. (1) 62½ gr.

**123.** Similar but the die composed of but one unit which is repeated several times.

*Rev.* Same. (2) 72½, 73½ gr.

**124.** Similar, coarser design. Die of one unit.

*Rev.* Blank. (1) 67 gr.

**125.** Similar, die of one unit.

*Rev.* Same. (1) 72 gr.

60 THE GAMPOLA LARIN HOARD

**126.** Similar, stamped twice.

*Rev.* Same, stamped at fold. (2) 71, 71½ gr.

These were stamped after folding as the obverse and reverse imprint are not opposite.

**127.** Similar.

*Rev.* Same. (1) 68½ gr.

**128.** Similar but coarser design, stamped thrice.

*Rev.* Same. (1) 73½ gr.

**129.** Similar, stamped only twice.

*Rev.* Blank. (1) 73½ gr.

**130.** Conventional border pattern.

*Rev.* Blank (1) 74½ gr.

**131.** Similar.

*Rev.* Blank. (1) 70 gr.

**132.** Design of curves and dots, shallow die.

*Rev.* Same but struck near the prongs.  
(2) 69, 73½ gr.

**133.** Similar.

*Rev.* Similar rough indistinct die. (2) 73, 73 gr.

**134.** Similar, sharply cut shallow die, repeated.

*Rev.* Blank. (2) 64, 74 gr.

The lighter specimen is made from a much shorter piece of wire and has a square fold showing it was flattened before being doubled.

**135.** Similar, stamped twice.

*Rev.* Same, stamped twice. (1) 74 gr.

**136.** Angular pattern.

*Rev.* Same. (1) 73½ gr.

**137.** Intaglio wave pattern.

*Rev.* Blank. (2) 64, 64½ gr.

**138.** Intaglio wave pattern.

*Rev.* Same. (1) 74 gr.

**139.** Same.

*Rev.* Blank. (1) 73 gr.

**140.** Pattern of thin curved lines.

*Rev.* Blank. (3) 70, 71½, 73 gr.

**141.** Similar.

*Rev.* Blank. (1) 73½ gr.

**142.** Similar.

*Rev.* Blank. (1) 59 gr.

This piece was flattened before doubling.

**143.** Pattern resembling the head and arms on the massas, as used on the first 18 numbers.

*Rev.* Same. (1) 69½ gr.

**144.** Similar, from very shallow die.

*Rev.* Blank. (1) 70 gr.

The die used to stamp this larin appears to have been made by etching rather than by cutting.

**145.** Small indefinite design stamped three times.

*Rev.* Same stamped three times. (1) 65½ gr.

This was slightly flattened before folding.

**146.** Indefinite character repeated.

*Rev.* Blank. (1) 70½ gr.

**147.** Indefinite character stamped twice.

*Rev.* Blank. (1) 65½ gr.

**148.** Indefinite character stamped once.

*Rev.* Blank. (1) 71 gr.

**149.** Indefinite punch mark.

*Rev.* Blank. (1) 72½ gr.

**150.** Diagonal criss-cross lines, at end three parallel lines.

*Rev.* Blank. (1) 75 gr.

Counterstamped on both prongs. Pl. IX.

62 THE GAMPOLA LARIN HOARD

**151.** Similar, but four parallel lines at end.

*Rev.* Blank. (3) 69, 70, 71.

**152.** Similar, but lattice design at end.

(1) 76½ gr.

**153.** Similar, but not as well done.

*Rev.* Blank (1) 73½ gr.

A piece with criss-cross lines (150-153) was illustrated in 1849 by W. B. Dickinson in the Numismatic Chronicle Vol. IX, p. 161, No. 6.

**154.** Criss-cross lines more like a lattice.

*Rev.* Blank. (1) Badly disintegrated.

This piece was plated over a copper core and was very badly corroded. For an analysis of this piece see introduction, p. 3.

**155.** Indefinite spider-web-like pattern.

*Rev.* Same. (1) 50½ gr.

This piece, although presenting the same general appearance as the other larins and looking no different in size or thickness than many other heavier specimens, is the lightest one of the find. An analysis shows it is about half silver and half copper.

**156.** Similar but involved in the criss-cross lines is the same mark as in No. 145.

*Rev.* Blank. (1) 78½ gr.

This piece was flattened before folding and is one of the heaviest larins in the hoard.

**157.** Irregular lines.

*Rev.* Similar but giving a little of the appearance of an armillary globe. See Nos. 29 and 30.

(1) 70½ gr.

**158.** Fish-scale design.

*Rev.* Same. (1) 74 gr.

- 159.** Similar.  
*Rev.* Same. (1) 69 gr.  
**160.** Similar.  
*Rev.* Blank. (1) 67½ gr.  
**161.** Striated surface.  
*Rev.* Indefinite design. (1) 66 gr.  
**162.** Striated surface.  
*Rev.* Blank. (1) 64 gr.

IMITATION OF ARABIC INSCRIPTIONS

*All probably made in Ceylon*

- 163.** Crude attempt at *Es-Sultan El Adil*.  
*Rev.* Same. (1) 74 gr.  
**164.** Similar but cruder.  
*Rev.* Similar but still cruder and coarser.  
 (5) 71½, 72 (2), 73, 74 gr.  
**165.** Same as reverse of No. 164.  
*Rev.* Same as obverse of No. 164.  
 (5) 72½, 73, 73½ (2), 74, gr.  
**166.** Boldly cut inscription of five characters.  
*Rev.* Blank. (1) 73½ gr.  
**167.** Pattern of straight and curved lines  
 possibly in imitation of the Arabic *Es-Sultan*.  
*Rev.* Blank. (8) Av. wt. 71.7 gr.  
**168.** Almost identical but from another die.  
*Rev.* Blank. (3) 62½, 71, 74½ gr.  
**169.** Same but from a third die.  
*Rev.* Blank. (7) Av. wt. 73 gr.  
**170.** Very similar but alternating three and two  
 straight lines.  
*Rev.* Blank. (1) 70½ gr.

64 THE GAMPOLA LARIN HOARD

171. Similar.

Rev. Blank. (2) 69, 73½ gr.

172. Similar but a little more elaborate.

Rev. Blank. (1) 67 gr.

All of the above, 167-172, have a general similarity and look as if the dies were cut by the same person.

173. Similar but coarser lines.

Rev. Blank. (2) 68, 76 gr.

174. Larger design, very shallow dies.

Rev. Same. (1) 80½ gr.

This piece was flattened before folding and is the heaviest piece in the find.

175. Crude attempt at the Arabic *Es-Sultan* stamped three times.

Rev. Same. (1) 75 gr.

176. Indefinite design and ten parallel lines stamped twice.

Rev. Crude *Es-Sultan* stamped twice. (1) 71 gr.

177. Crude straight lines at various angles.

Rev. Blank. (1) 75 gr.

178. Crude diagonal lines.

Rev. Same (2) 71, 73 gr.

179. Crude upright parallel lines.

Rev. Same. (2) 72½, 74½ gr.

180. Similar but cruder and more irregular, imprint repeated.

Rev. Same. (1) 69 gr.

181. Crude markings.

Rev. Indefinite markings, possibly the same. (1) 70½ gr.

182. Very similar.

Rev. Blank. (1) 71½ gr.



- 183.** Similar.  
*Rev.* Blank. (1) 71½ gr.
- 184.** Crude, shallow markings.  
*Rev.* Blank. (1) Broken.
- 185.** Indistinct, shallow marks.  
*Rev.* Blank. (1) 73 gr.
- 186.** Crude straight and curved line markings.  
*Rev.* Blank. (2) 73½, 74.
- 187.** More complicated markings.  
*Rev.* Blank. (6) 67, 68, 70½, 72½, 73 (2) gr.
- 188.** Similar lines less curved.  
*Rev.* Blank. (1) 70½ gr.
- 189.** Similar.  
*Rev.* Blank. (1) 75 gr.
- 190.** Similar.  
*Rev.* ? (1) Broken in half.
- 191.** Similar but bolder cut.  
*Rev.* Blank. (2) 73, 74½ gr.
- 192.** Similar.  
*Rev.* Blank. (1) 74 gr.
- 193.** Similar but very shallow dies.  
*Rev.* Same. (1) 73 gr.
- 194.** Similar bolder markings.  
*Rev.* Same. (1) 72 gr.
- 195.** Similar.  
*Rev.* Same. (1) 73 gr.
- 196.** Similar.  
*Rev.* Blank. (1) 74 gr.
- 197.** Similar.  
*Rev.* Blank. (1) 73½ gr.

On the above pieces 187-197 it looks as if the die cutter attempted to copy the Arabic word *Sultan*.

66 THE GAMPOLA LARIN HOARD

**198.** Imitation of an elaborate inscription resembling somewhat the Persian larins of Tahmasp I.

*Rev.* Similar. (1) 66 gr.

**199.** Similar.

*Rev.* Same. (1) 72 gr.

**200.** Similar, a good imitation of a Persian larin.

*Rev.* Similar. (1) 68½ gr.

**201.** Almost identical.

*Rev.* Same. (1) 69½ gr.

**202.** Similar.

*Rev.* Same. (1) 73 gr.

**203.** Similar.

*Rev.* Same. (1) 71½ gr.

**204.** Similar, badly worn.

*Rev.* Similar. (1) 67½ gr.

**205.** Similar.

*Rev.* Possibly from the same die. (1) 73 gr.

**206.** Similar.

*Rev.* Similar, possibly from another part of the same die. (1) 74½ gr.

**207.** Crosswise section from a similar die.

*Rev.* Crosswise section of die. (1) 73½ gr.

**208.** Similar.

*Rev.* Blank. (1) 70½ gr.

This is an extremely narrow larin.

**209.** Similar.

*Rev.* Similar. (1) 73 gr.

This piece is unusual as it has been flattened out its whole length.

**210.** Similar.

*Rev.* Same. (1) 73 gr.

**211.** Similar but with diagonal lines going through the design.

*Rev.* Same. (1) 65 gr.

**212.** Similar but cruder and coarser work, double struck.

*Rev.* Same, double struck. (1) 61½ gr.

The fifteen larins Nos. 198–212 are probably earlier larins and are all somewhat worn. They all look as if they had been copies from larins of Tahmasp I and Mohammed Khudabanda of Persia. All have been bent in an irregular manner. See also Pl. I.

**213.** Die crudely cut, part only showing. The inscription is at the prong end, not the fold.

*Rev.* Similar. (1) 73½ gr.

**214.** Irregular scratchy lines.

*Rev.* Blank. (1) 72½ gr.

The die for this piece looks as if it had been etched rather than cut.

**215.** Part of scraggy design.

*Rev.* Similar. (1) 71 gr.

**216.** Similar.

*Rev.* Blank. (2) 73, 74 gr.

**217.** Same.

*Rev.* Crude markings divided by a straight line. (1) 73½ gr.

**218.** Same as reverse of No. 217.

*Rev.* Blank. (3) 69, 71½, 73.

**219.** Similar.

*Rev.* Similar but coarser work. (1) 62 gr.

**220.** Similar to reverse of No. 217.

*Rev.* Small fragment of design. (1) 74½ gr.

**221.** Similar.

*Rev.* Blank. (3) 64, 73½(2).

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- 222.** Similar.  
*Rev.* Probably the same. (1) 73 gr.
- 223.** Similar but looking more like Arabic.  
*Rev.* Blank. (1) 73 gr.
- 224.** Similar but from a short die and struck in a continuous line four times. The design is partly off the flan.  
*Rev.* Blank. (1) 75 gr.
- 225.** Indefinite design repeated.  
*Rev.* Same. (1) 54 gr.
- 226.** Indefinite pattern.  
*Rev.* Probably another part of the same die. (1) 75 gr.
- 227.** Similar but die more sharply cut.  
*Rev.* Blank. (1) 60½ gr.
- 228.** Similar very shallow die nearly obliterated.  
*Rev.* Blank. (1) 64 gr.
- 229.** Similar sharply cut die.  
*Rev.* Faint, indefinite markings. (1) 74 gr.
- 230.** Shallow markings probably from etched dies.  
*Rev.* Blank. (1) 71 gr.
- 231.** Similar to Nos. 49-54 but resembling an Arabic inscription.  
*Rev.* Blank. (2) 67½, 71 gr.  
 Both of these pieces are counterstamped, probably by the die used to stamp the larin itself.
- 232.** Similar.  
*Rev.* Same. (1) 73 gr.
- 233.** Design probably imitating a Persian coin of the period of Tahmasp.  
*Rev.* Similar but lightly struck. (1) 70 gr.

- 234.** Similar.  
*Rev.* Blank. (2) 72 (2) gr.  
**235.** Similar.  
*Rev.* Blank. (1) 71½ gr.  
**236.** Almost identical.  
*Rev.* Blank. (1) 73½ gr.  
**237.** Similar.  
*Rev.* Same. (1) 72½ gr.  
**238.** Similar.  
*Rev.* Blank. (1) 73 gr.

The above six larins bear a great similarity to one another both in die work and striking and some of the pieces may show different parts of the same die.

- 239.** Similar but a little coarser.  
*Rev.* Same. (1) 72½ gr.  
**240.** Similar.  
*Rev.* Blank. (1) 72½ gr.

**241.** Probably struck from a large round die imitating a Persian coin of the later 16th or early 17th centuries. That part of the inscription showing clearly indicates it was not struck from governmental coin dies.

- Rev.* Blank. (1) 73 gr.

**242.** Similar, the Arabic word for "struck" is probably intended.

*Rev.* Similar, the word Mohammed possibly intended. (1) 73½ gr.

The cut truncation of one of the prongs is counter-stamped, the only instance noted. Pl. IX.

**243.** Apparently a part of the Kalimah or Muslim creed.

- Rev.* Same. (1) 71½ gr.

**244.** Similar but more conventionally done.  
Stamped from a small die.

*Rev.* Same. (2)  $71\frac{1}{2}$ , 74 gr.

**245.** Design, part of which resembles an S.

*Rev.* Blank. (3) 73,  $73\frac{1}{2}$ , 74 gr.

**246.** Similar.

*Rev.* Blank. (3) 71,  $73\frac{1}{2}$ , 74 gr.

**247.** Similar, design repeated.

*Rev.* Fair imitation of Arabic, repeated.  
(1)  $71\frac{1}{2}$  gr.

This piece was flattened out the entire length.

**248.** Same.

*Rev.* Same as obverse. (3)  $69\frac{1}{2}$  (2), 72 gr.

**249.** Similar but from shallow dies.

*Rev.* Blank. (1) 73 gr.

**250.** Similar.

*Rev.* Blank. (1)  $71\frac{1}{2}$  gr.

The above two pieces are almost identical; the die-work is the same and they were undoubtedly struck from different parts of the same die.

**251.** Crude markings from very shallow die.

*Rev.* Probably from another part of the same die.  
(1)  $69\frac{1}{2}$  gr.

**252.** Crude markings, possibly characters, one of which looks like the Devanagari M.

*Rev.* Similar. (2) 70, 73 gr.

**253.** Same.

*Rev.* Blank. (1) 74 gr.

**254.** Similar.

*Rev.* Similar but design more angular.  
(4)  $72\frac{1}{2}$ , 73,  $73\frac{1}{2}$  (2) gr.

THE GAMPOLA LARIN HOARD 71

- 255.** Same as reverse of No. 254.  
*Rev.* Blank. (1) 69 gr.
- 256.** Similar.  
*Rev.* Same. (1) 75 gr.
- 257.** Similar but cruder.  
*Rev.* Same. (1) 72 gr.
- 258.** Same reverse as No. 12 (Parakrama Bahu).  
*Rev.* Same. (2) 58½, 70 gr.
- 259.** Similar but poorly cut.  
*Rev.* Similar. (1) 74 gr.
- 260.** Similar only small part of design showing.  
*Rev.* Same. (1) 69 gr.
- 261.** Similar (the design is badly battered).  
*Rev.* Blank. (1) 65 gr.
- 262.** Similar.  
*Rev.* Possibly from same die. (1) 72 gr.
- 263.** Similar.  
*Rev.* Similar. (1) 70½ gr.
- 264.** Design in rough bold relief closely imitating Arabic.  
*Rev.* Blank. (1) 75½ gr.
- 265.** Very similar but in incuse rectangle.  
*Rev.* Similar but not in rectangle. (1) 71 gr.
- 266.** Similar.  
*Rev.* Blank. (4) 64, 66½, 68½, 70 gr.
- 267.** Similar.  
*Rev.* Blank. (1) 70 gr.
- The sides of this piece have been carefully flattened and the piece was flattened before folding.
- 268.** Similar but more or less indefinite.  
*Rev.* Similar. (2) 66½, 68½ gr.

**269.** Similar but very roughly and crudely cut in high relief.

*Rev.* Blank. (1) 75 gr.

**270.** Similar, crude work.

*Rev.* Blank. (1) 70½ gr.

**271.** Similar crude sketchy work.

*Rev.* Blank. (1) 65½ gr.

**272.** Similar, partly obliterated.

*Rev.* Design in finer lines. (1) 66 gr.

**273.** Crude scratchy lines.

*Rev.* Same. (1) 65½ gr.

**274.** Similar but fine indefinite lines.

*Rev.* Same. (1) 66½ gr.

**275.** Similar.

*Rev.* Blank. (2) 54, 72½ gr.

The light specimen is of much finer gauge wire and of no greater length.

**276.** Thin scratchy lines.

*Rev.* Apparently the same, lightly struck. (1) 73 gr.

**277.** Extended indistinct design.

*Rev.* Same. (1) 67½ gr.

**278.** Short design repeated.

*Rev.* Repeated curved lines resembling the Arabic *la la la*. (1) 75 gr.

**279.** Similar, shallow dies repeated.

*Rev.* Similar. (1) 71 gr.

**280.** Similar, twice repeated.

*Rev.* Same. (1) 71½ gr.

**281.** Similar, long design.

*Rev.* Same. (1) 72 gr.



- 282.** Similar markings closer together.  
*Rev.* Blank. (1) 71 gr.
- 283.** Similar markings somewhat indefinite.  
*Rev.* Blank. (1) 71 gr.
- 284.** Similar, fine line clear markings.  
*Rev.* Blank. (1) 71 gr.
- 285.** Similar, fine indefinite lines.  
*Rev.* Blank. (1) 67 gr.
- 286.** Crude markings resembling Arabic.  
*Rev.* Same. (1) 71 gr.
- 287.** Similar, but coarser work.  
*Rev.* Blank. (1) 70 gr.
- 288.** Crude markings.  
*Rev.* Similar. (1) 70½ gr.
- This piece was flattened before folding and looks as if the die had been made by etching.
- 289.** Crude markings.  
*Rev.* Blank. (1) 72½ gr.  
 Made from etched dies.
- 290.** Similar longer inscription (?).  
*Rev.* Blank. (1) 63½ gr.  
 Made from etched dies.
- 291.** Similar.  
*Rev.* Blank. (1) 70 gr.  
 Made from etched dies.
- 292.** Design of skeleton-like lines.  
*Rev.* Blank. (1) 72½ gr.
- 293.** Indefinite crude markings.  
*Rev.* Similar. (1) 72 gr.
- 294.** Similar.  
*Rev.* Same. (1) 68½ gr.

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**295.** Unstamped.

*Rev.* Same.

(6)  $64\frac{1}{2}$ ,  $66\frac{1}{2}$ ,  $68\frac{1}{2}$ , 72,  $72\frac{1}{2}$ ,  $75\frac{1}{2}$  gr.

All of the pieces have been flattened after folding, two very much so, and one has been flattened on the sides as well. All have test cuts, and have been made from varying gauges of wire. By their general appearance, at least four different people made them.

### II. LARINS MADE IN PERSIA AND ELSEWHERE

#### (a) STRUCK FROM PERSIAN COIN DIES

**296.** Struck from coin dies of about the period of Ismail I or Tahmasp I of Persia (1502–1576) showing a small section of center and marginal inscription on each side.

For general type of coin see British Museum Catalogue, The Coins of the Shahs of Persia, Plate I, 18.

(1) 72 gr.

**297.** Struck from coin dies of the period of Mohammed Khudabanda of Persia (1578–1587) showing small area on each side.

(1) 72 gr.

Compare B. M. Cat. Shahs of Persia Pl. I, 27a.

**298.** Struck from dies of silver coin of Abbas I (1587–1629) minted at Tabriz in 1026 A. H. (1617 A. D.)

(2)  $74$ ,  $75\frac{1}{2}$  gr.

**299.** Struck from dies of silver coin of Abbas I of a coarser type.

(1) 67 gr.

**300.** Struck from early dies from the Kashan mint. The mint name Kashan within square shows clearly.

(2)  $62\frac{1}{2}$ , 74 gr.

**301.** Struck from early seventeenth century coin-dies from the Ganja mint. (1) 74 gr.

**302.** Struck from early seventeenth century coin-dies from the Kazvin mint. (1) 67 gr.

**303.** Struck from dies of coin of Abbas II (1642-1666). (2) each 74½ gr.

**304.** Struck from various coin-dies of seventeenth century Persian rulers, the mint, date or name of ruler not legible, as the pieces were either worn or poorly struck. In all cases only a small part is distinguishable, and in most cases the side that shows best is the one with the religious formula which gives no clue. (128) Av. wt. 71.27 gr.

One piece has been counterstamped and one piece has had the sides flattened. Nearly all of the pieces (Nos. 296-304) are made of heavy wire and have been neatly curved as shown by the first two larins on Plate I.

**305.** Struck on the two curved, rounded edges of the larin, leaving the obverse and reverse blank but flattened. (4) 69½, 71, 72½, 73 gr.

These pieces are an enigma. It was at first thought that they were struck by Persian coin dies accidentally on the rounded sides, as the top and bottom had been purposely flattened to receive an impression. A further examination revealed the fact that they were struck after the pieces had been curved and therefore were struck in Ceylon. The reason, undoubtedly, was that they escaped detection until the last moment and were then struck on the only place they could then be stamped.

#### (b) PERSIAN INSCRIPTIONS FROM DIES MADE TO STRIKE LARINS

**306.** A long, well-written Persian inscription in which only the words *Shah Tahmasp* and possibly

the words *Kalad Allah* (may God perpetuate) and the date 966 (1558 A. D.) can be made out.

*Rev.* In Persian characters consisting chiefly of upright lines the first part of the Kalimah (There is no God but God). (1) 73 gr.

The inscription on this piece does not conform with that generally given for larins bearing the name of Tahmasp I, which, for the most part, read *Abu'l-muzaffar Tahmasp Shah Al-Husaini* etc. See Catalogue of coins in the Colombo Museum, Pt. I by H. W. Codrington, 1914, pp. 55-58. The reverse may correspond with 47D.

**307.** Similar, the words *Tahmasp* and *Kalad Allah Malika* can be made out.

*Rev.* The more complete Kalimah can be seen showing the words "Mohammed is the Apostle of God." (3) 64½, 67½, 75 gr.

Heavy one counterstamped, Pl. IX.

**308.** Similar.

*Rev.* Similar. (1) 73½ gr.

This piece is made of thin-gauge wire .085 inches and the wire used is 5⅝ inches long. See Plate I and introduction, page 29.

## MISCELLANEOUS ARABIC INSCRIPTIONS

### (a) *Intaglio Inscriptions*

**309.** Incuse impression twice stamped from a coin of Abbas II of Persia showing part of the word *Abbas* and the date 1056 A. H. (1646 A. D.)

*Rev.* Blank (1) 68 gr.

**310.** Incuse impression stamped from coin.

*Rev.* Similar. (1) 70½ gr.

One prong counterstamped by a coin.

311. Similar.

Rev. Similar. (1) 71½ gr.

312. Similar.

Rev. Similar. (2) 73 gr.

313. Similar.

Rev. Blank. (5) 69½, 70, 70½, 75 (2) gr.

Too poorly struck or too worn to classify separately.

(b) *Inscription in relief*

314. In Persian *dharb lari* (struck the lari).

Rev. *Dharb lari* followed by a word I have not been able to read. (3) 68½, 70½, 74 gr.

315. Confused Persian inscription probably meant for *dharb lari* and the letters *nun waw*.

Rev. Same as reverse of No. 314.

(2) 72 (2), 74 gr.

316. Same as obverse of No. 315.

Rev. Same, but the continuation of the inscription shown, *waw nun dal, senet* (year) and the date 1029 (1619 A. D.)

(1) 71½ gr.

317. Same as reverse of No. 316.

Rev. Same as reverse of No. 314. (2) 74, 74 gr.

The above pieces (Nos. 314-317) with respect to the words *Dharb lari* are similar to the larins which are known as the date-stone type.<sup>70</sup> The style of writing and the general fabric are not at all alike however. (See Plate X, a-c).

318. Inscription on both sides struck from coins, the word *Sultan* only can be clearly made out.

(3) 72½, 75, 75½ gr.

<sup>70</sup> See Numismatic Chronicle Vol. XI (1849) p. 161, Vol. XIV (1853) p. 179, and J. A. S. B. New Series, Vol. VI, No. 11 (1910) p. 687 for accounts of these larins.

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These possibly are Turkish larins struck at Basra; such have been found in Ceylon.<sup>71</sup>

**319.** Inscription on both sides struck from coins bearing a strong resemblance to the larins struck by the Kings of Hormuz.<sup>72</sup> (1) 74 gr.

**320.** Larins too worn or too poorly struck to decipher. (26) Av. wt. 70 gr.

### III. COINS

The following coins were found in the hoard.

#### COINS OF SINHALESE SOVEREIGNS OF THE THIRTEENTH CENTURY<sup>73</sup>

**321.** Copper coin of Sáhasa Malla (1200–1202 A. D.). Codrington, Ceylon Coins and Currency, Pl. IV, 81. (7) Pl. II, 1.

**322.** Copper coin of Dharmosoka (1208–1209 A.D.). Codrington Pl. IV, 82. (1) Pl. II, 5.

**323.** Copper coins of Lílávatí (1197–1200–1209–1210–1211–1212, A. D.). Codrington Pl. IV, 80. (2) Pl. II, 6.

**324.** Copper coins of Parákrama Báhu II (1236–1271 A. D.). Codrington Pl. IV, 84. (19) Pl. II, 8.

<sup>71</sup> Cat. of Coins in the Colombo Museum, Pt. I, by H. W. Codrington, p. 58.

<sup>72</sup> See article by H. W. Codrington, Coins of Some Kings of Hormuz. Numismatic Chronicle, 4th Series, Vol. XIV (1914) p. 56.

<sup>73</sup> These coins have been generally called *massas*, but this designation is incorrect as the *massa* is the one-twentieth of the *kahavanuva*, though later used as a general term for coin. One of the native names of the time, and the one considered the best by students today is *Dambadeni kasi* or *salli*.

**325.** Copper coins of Vijaya Báhu IV (1271–1273 A. D.). Codrington Pl. IV, 85. (6) Pl. II, 13.

**326.** Copper coins of Bhuvaneka Báhu I (1273–1284 A. D.). Codrington Pl. IV, 86. (8) Pl. II, 15.

These 43 coins were heavily encrusted with a hard green patination. For further remarks concerning these, see introduction p. 5.

### PORTUGUESE SILVER COINS

#### *Gridiron Type*

**327.** Tanga. Crowned Portuguese arms between C–L° (Ceilão or Colombo) enclosed in a bead and two line circles.

*Rev.* The Gridiron of St. Lawrence between 16–40. Codrington, Pl. IV, 106. (2) 36½, 37 gr.

**328.** Tanga. Same but counterstamped with the VOC, with C(olombo) above monogram. This monogram of the Dutch East India Company was stamped on various foreign and earlier coins probably after 1661. (1) 35½ gr.

**329.** Tanga. Same but counterstamped with monogram of Galle (GAL) of 1655. (1) 35½ gr.  
Codrington, Ceylon Coins p. 110.

**330.** Tanga. Similar but in lower relief and dated 1644. (1) 33½ gr.

This date very rare.

**331.** Tanga. Same but date partly obliterated. (1) 26 gr.

**332.** Tanga. Similar but G–A (Goa) in place of C–L°.

*Rev.* Similar but date 1645. (1) 34 gr.  
Codrington Pl. IV, 107.

**333.** Tanga. Same but with the VOC counterstamp. (1) 34 gr.

**334.** Tanga. Similar but in higher relief and with 3-İ (? (16) 31) on each side of shield, bead and outer line circles.

*Rev.* Gridiron between S L (São Lourenço) within a bead, line and bead circle. (1) 38½ gr.  
Codrington Pl. V, 114.

#### MALACCA TYPE

**335.** Counterfeit Xerafim. Crowned Portuguese arms between A-M (Asia Malacca) within a bead circle.

*Rev.* Monogram TA(nga) between D-M (De Malacca); below, 1636. (1) 155½ gr.

Compare Grogan Sale 1315 and Colombo Mus. Cat. No. 78.

This piece and No. 347 are contemporary cast counterfeits, discernible under a strong glass. They were in the find as they had the same corrosion as had the other coins. The specimen in the Grogan Coll. (1315) and those in the Colombo Museum (77-78-79) weighed from 184.9 to 191.4 grains.

**336.** Tanga. Similar to above.

*Rev.* Similar but no date beneath monogram.

Grogan Cat. 1313. (9) Av. wt. 47 gr.

**337.** Tanga. Same but counterstamped with GAL in monogram. (6) Av. wt. 47½ gr.

Apparently none of the six countermarks are from the same punch.

**338.** Tanga. Same but counterstamped with the VOC monogram. (1) 46½ gr.



**339.** Tanga. Same.

*Rev.* Same but with date 1631 beneath monogram. (5) Av. wt. 47 gr.

**340.** Tanga. Same and dated 1631, but counterstamped with the GAL monogram.

(3) Av. wt. 47 gr.

**341.** Tanga. Same but with the VOC monogram. (1) 47½ gr.

**342.** Tanga. Same.

*Rev.* Same, with date 1632. (4) Av. wt. 46½ gr.

**343.** Tanga. Same but counterstamped with the GAL monogram. (6) Av. wt. 47 gr.

**344.** Tanga. Similar but with date below shield 1633.

*Rev.* Same, but as the lower part was not struck up it is impossible to tell if this side bore a date or not. (1) 47½ gr.

**345.** Tanga. Similar to No. 342.

*Rev.* Similar to No. 342 but date 1634.

(3) 47, 48 gr.

The third specimen appears to be a contemporary cast counterfeit and weighs only 37 gr. Extremely rare.

**346.** Tanga. Same as above but dates obliterated, one has the Galle counterstamp.

(3) 46, 47½, 47½ (cst) gr.

**347.** Counterfeit Xerafim. Similar but with M-A (Malacca) instead of A-M at sides of shield.

*Rev.* Similar but date 1635. (1) 162 gr.

See note to No. 335.

**348.** Tanga. Similar (M-A).

*Rev.* Similar (1635). (3) 30, 45, 47 gr.

Very rare. The light specimen is a cast counterfeit.

**349.** Double Tanga. Crowned arms between G-A within a line, bead and line circle.

*Rev.* TA monogram between D-S (DeSeylão); below, 1644. (1) 69 gr.

**350.** Tanga. Similar.

*Rev.* Similar but date 1642.

Grogan Cat. 1321. (1) 34 gr.

**351.** Tanga. Similar.

*Rev.* Similar but date 1643.

Grogan Cat. 1322. (1) 34½ gr.

**352.** Tanga. Similar but A-D (G reversed).

*Rev.* TA monogram between D-S (the S on an angle). Between D-S, first part of the date, 16.

(1) 27 gr.

This piece is a contemporary forgery of the G-A: D-S tanga type, not only is the weight light but the metal is base.

#### SAINT TYPE

**353.** Double Tanga. Crowned arms of Portugal between C-B (Chaul-Bassein) within line, bead and line circle.

*Rev.* St. John the Baptist standing, facing left, holding behind head cross and pennon. At sides 2-(1); below, date 16-[?]6, are within line, bead and line circle. Counterstamped with VOC monogram.

Unpublished. (1) 63 gr.

**354.** Double Tanga. Similar.

*Rev.* St. John standing, facing right, holding before him cross and pennon. At sides S-I; below 1643. All within line, bead and line circle.

Grogan Cat. 1534. (1) 68 gr.

**355.** Double Tanga. Similar.

*Rev.* Similar but date 16-50.

Grogan Cat. 1326. (1) 64½ gr.

The obverse die is badly broken.

**356.** Double Tanga. Similar.

*Rev.* Similar but date 16-52.

Grogan Cat. 1329. (1) 64½ gr.

**357.** Double Tanga. Similar but  $\text{\AA}$ -D (Tanga de Diu) instead of G-A.

*Rev.* Similar but date 16-55. (2) 63½, 64 gr.

Both pieces are counterstamped with the VOC monogram and both coins are struck from the same pair of dies.

#### MISCELLANEOUS

**358.** Tanga. Crowned arms of Portugal within a bead and line border.

*Rev.* Monogram TA within a bead and line border.

Codrington Pl. V, 111. Grogan Sale 1316. (1) 46 gr.

**359.** Tanga. Similar but counterstamped with the Galle monogram. Codrington 112. (1) 35 gr.

**360.** Tanga. Crowned arms between [D]-T, bead border.

*Rev.* Monogram TA within bead border.

Unpublished. (1) 43½ gr.

A second specimen of this coin from the Gampola find but countermarked the Colombo V.O.C. monogram is in Mr. Biddell's collection. This piece was probably struck in the latter part of the fifteenth century as the crown strongly resembles that on the gold S. Thomé of 1595, compare Aragão Pl. I, No. 1 of D. Filipe I, and Grogan in Spink's circular, 1914 Col. 91. This crown is unlike any of the later crowns. The form of the TA

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monogram is unlike any on the other issues and may be the earliest type. Mr. H. W. Codrington suggests the D. T. may stand for De Tuticorin. It certainly is a piece of local manufacture.

**361.** Tanga. Crowned arms between A-M, a dot above and beneath each letter, enclosed within line, bead and line circle.

*Rev.* TA monogram between RF, a dot before and after R and F, and four dots around the monogram. All within line, bead and line circle.

Codrington p. 103. Compare Aragão Pl. I, 7.

(1) 45½ gr.

Counterstamped with the VOC monogram.

SPAIN

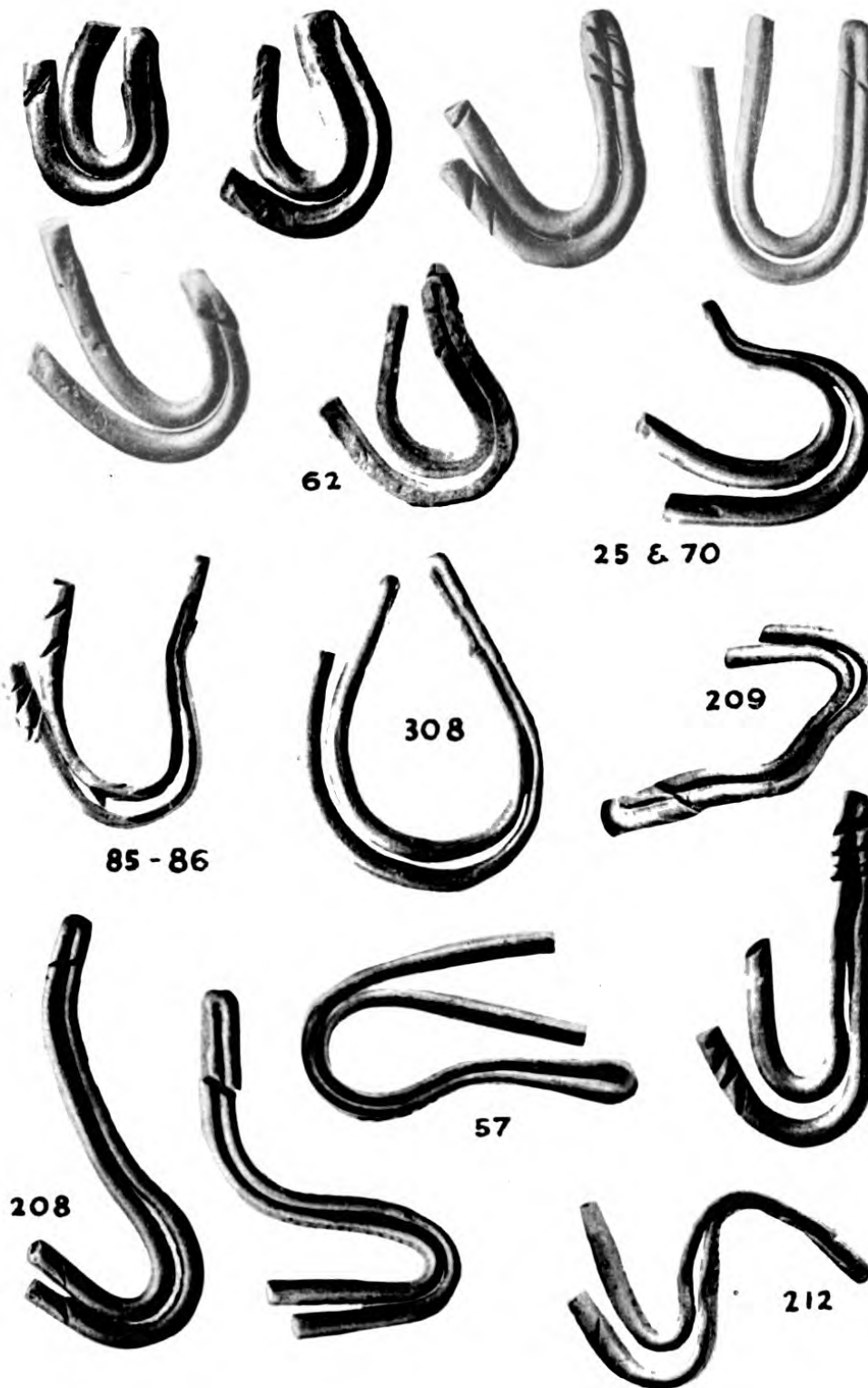
**362.** Two reals. Crowned arms of Spain; at left, <sup>S</sup><sub>o</sub>.

*Rev.* Cross, castles and lions in the four cantons.

(1) 101 gr.

This piece on irregular flan was probably struck at Seville during the reign of Philip II in the latter part of the sixteenth century. Spanish coins were in circulation in Ceylon.

PLATE I



# THE GAMPOLA LARIN HOARD



1, 2, 3, 4



REV. 1 - 17  
18



INTAGLIO 2, 3, 4



1A, 1B



2 - 4



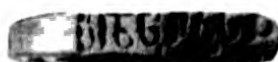
2 - 4



4



5



5



INTAGLIO 5



6 - 7



6 - 7



7



INTAGLIO 6,7

PLATE II



8 - 12



8 - 12



9 - 12



11



INTAGLIO 8 - 12



13 - 14



13 - 14



15



15 - 16



INTAGLIO 13 - 14



15 - 16



18



INTAGLIO 15 - 16



19

19



20



REV. 21



20



21



OBV. 21

# THE GAMPOLA LARIN HOARD



23



25



27



29



31



32-33



35



38



22



24



26



28



30



31



34



32 - 33



35



38



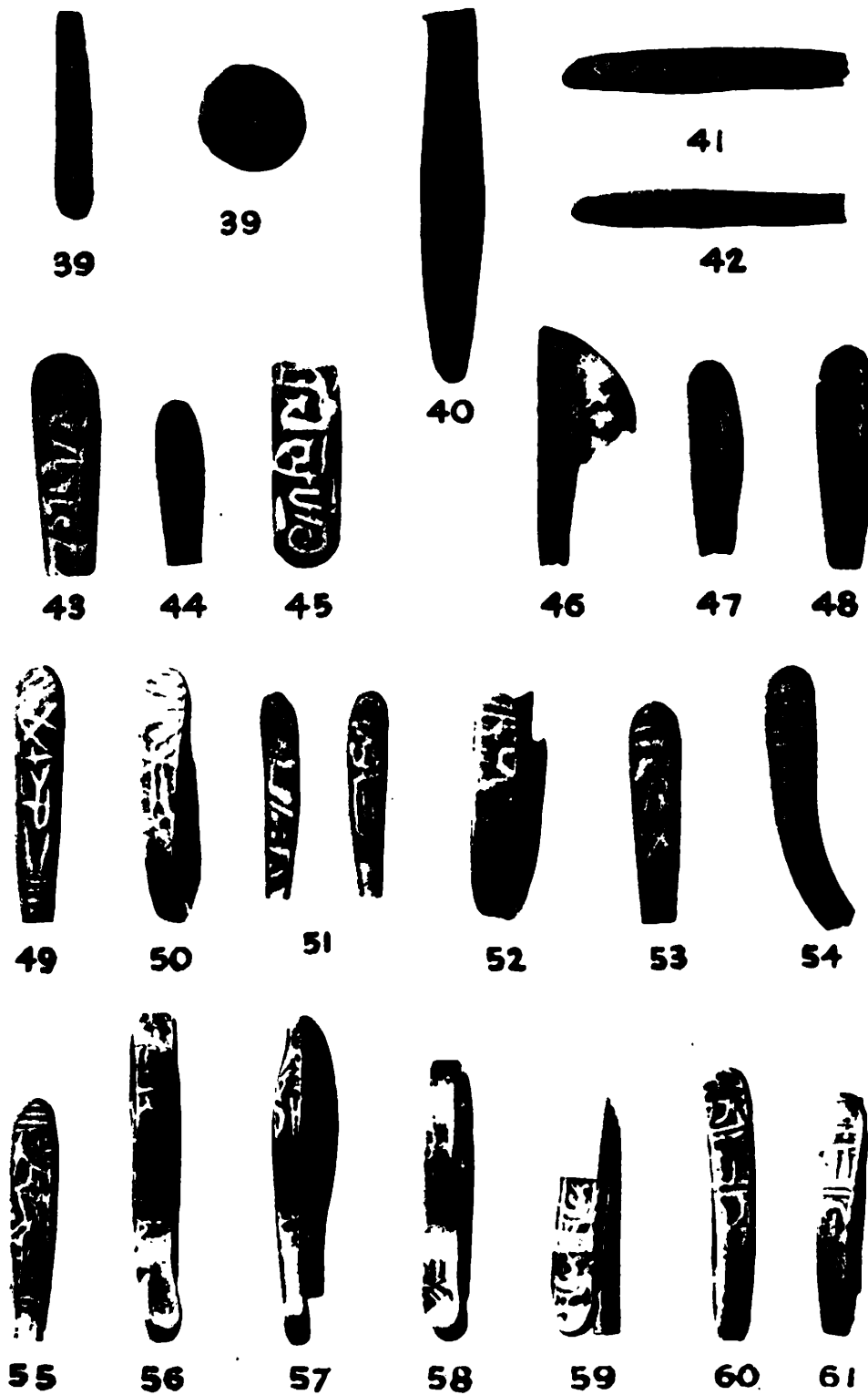
36 - 37



36 - 37



# PLATE III



# THE GAMPOLA LARIN HOARD



62



63



64



65



66



67



68



69



70



71



72



73



74



75



76



77



78



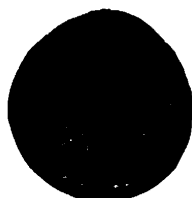
79



80



81, 82

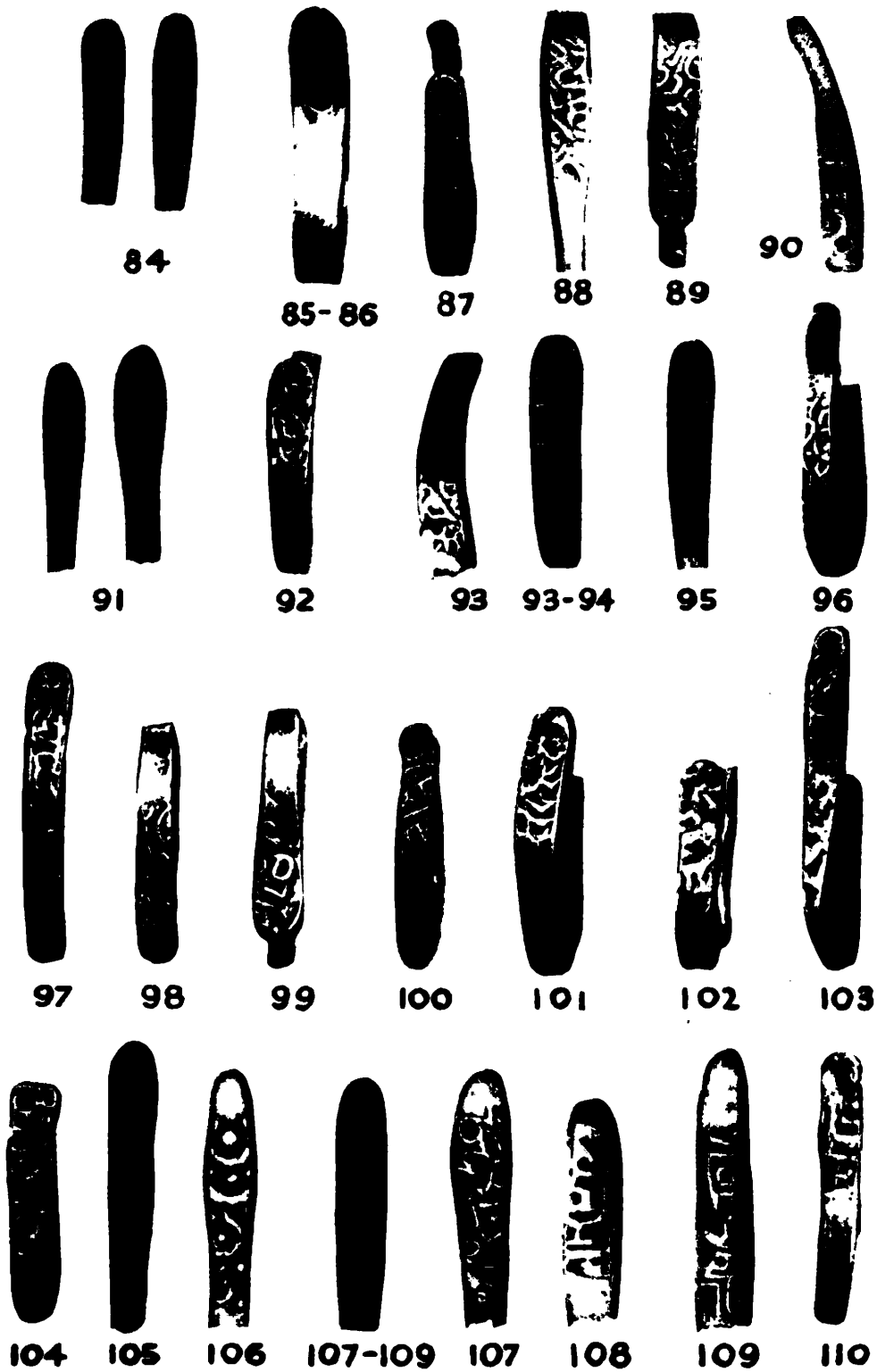


81, 83



81, 83

PLATE IV



# THE GAMPOLA LARIN HOARD

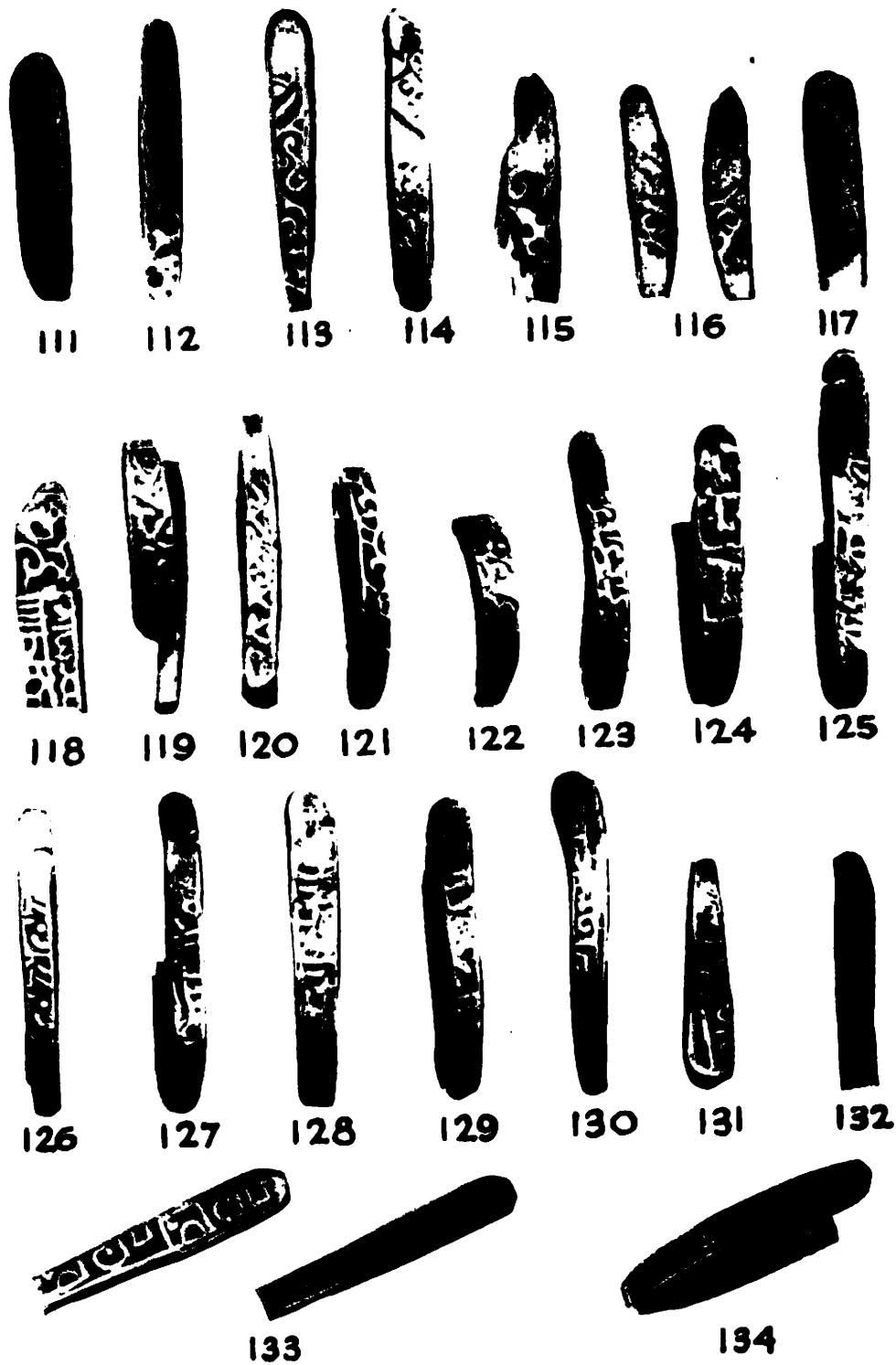
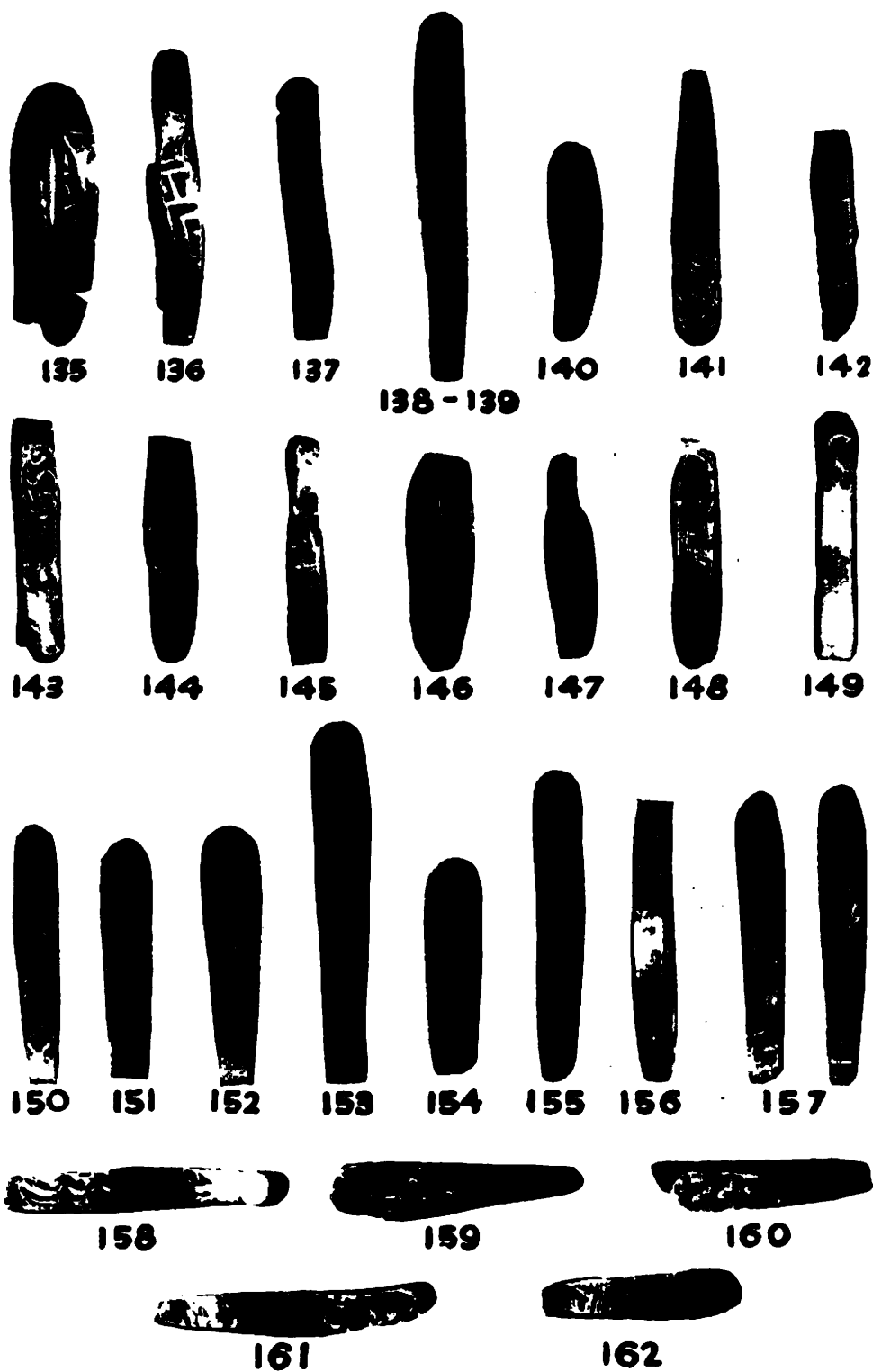


PLATE V



# THE GAMPOLA LARIN HOARD



163



164 - 5



166



167



168



169



170



171



172



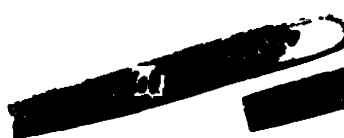
173



174



175



176



177



178



179



180



181



182



183



184



185



186



187



188



189



190



191

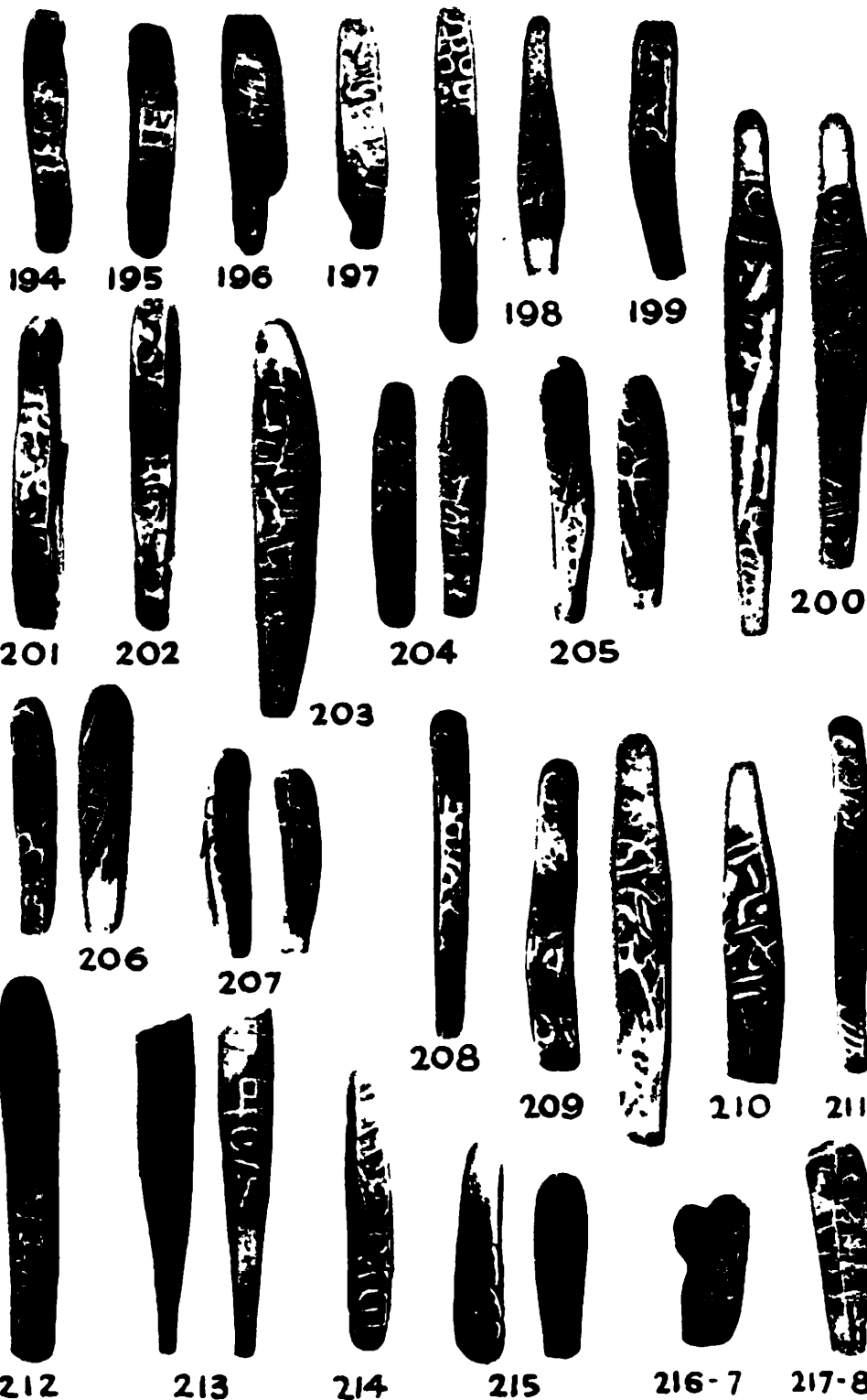


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# PLATE VI



# THE GAMPOLA LARIN HOARD



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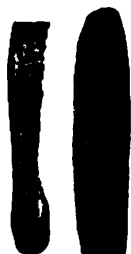
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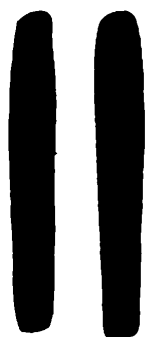
# PLATE VII



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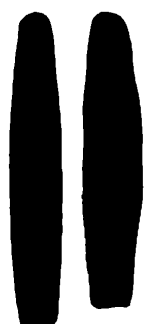
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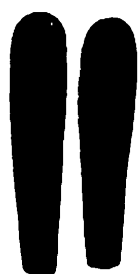


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# THE GAMPOLA LARIN HOARD



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PLATE VIII



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# THE GAMPOLA LARIN HOARD



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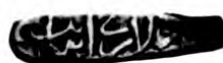
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## COUNTERSTAMPS



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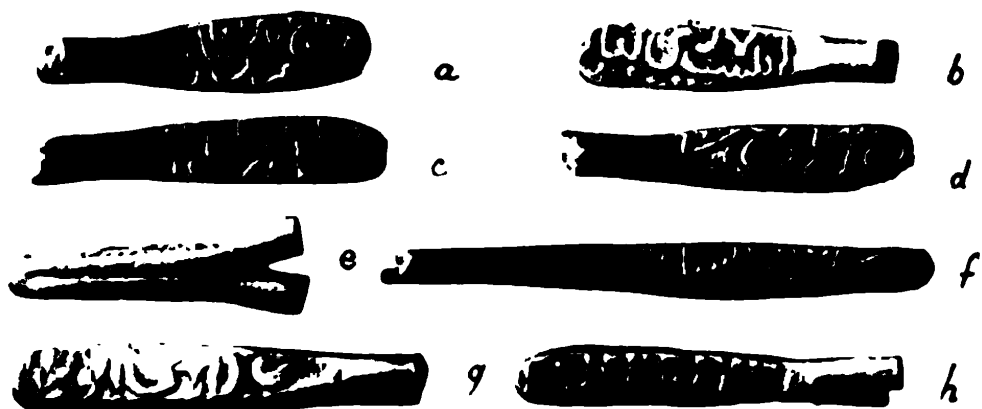
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PLATE IX

INDIAN LARINS



PERSIAN LARINS



JAVAN LARIN



ARABIAN LARINS



# THE GAMPOLA LARIN HOARD



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PLATE X



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## NUMISMATIC NOTES AND MONOGRAPHS

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